NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SEPTEMBER.

SEPTEMBER is, by many, regarded as the pleasantest month of the year. The scorching heat of summer has given place to the milder sun-rays and gratefully cooling breezes of autumn.

After the continuous and exhausting labors of the hay and grain harvests, how grateful is a season of rest! After sweltering and steaming in the murky and enervating atmosphere of dog-days, how invigorating the pure, elastic air of autumn's first month!

Our pleasurable emotions depend mostly, if not wholly, upon contrast. Having felt the pain of hunger, we are prepared to appreciate the pleasure of eating. "Sweet is the pleasure after pain." How sweet to the laboring man is repose, after the toils of the day! and after the severe labors of the season are past, and the more valuable crops are gathered, and scarcely housed, how delightful for the husbandman to contemplate the work of his hands! how natural for him to indulge in honest pride when he reflects that, by the sweat of his own brow he eats his bread,—that he receives the bounties of a kind Providence, direct from the hand of the great giver of all good!

Supposing our readers are in some such happy frame of mind as this, we propose, at the commencement of this new quarter, to take a stroll with them about the farm; making such suggestions by the way, as may be of service to those who desire progress in the great art of husbandry.

Winter wheat should be sown this month, and the sooner the better. That wheat may be produced in most parts of New England, and made a remunerative crop, needs not further to be argued. The high price of flour for the last two years, if there were no other consideration, should lead those who have suitable ground to make the experiment.

Whether spring or autumn is the best time for sowing wheat, is a mooted question. We are in favor of both. We have good authority for saying, "In the morning sow thy seed, and in the evening withhold not thy hand."

In Maine, New Hampshire and Vermont, we believe most of the wheat is sown in the spring. The reason assigned is, that it is less liable to winter-kill. If the ground is wet and cold, we should prefer not to sow wheat upon it. But, if at all, we should sow in the spring. Otherwise we prefer autumn.

The same preparation which is made for a crop of rye, will ensure at least as good a return in wheat; and, in most cases, as much better as wheat is more valuable than rye. The ground may be prepared as for rye, by fallowing and seeding, early in September. It may be sown after the corn or potatoes, provided they are got off early in October. But we prefer turning under clover, and sowing about the first of September. In all cases, lime should be used freely. Oyster-shell is cheapest, and answers a good purpose. The shells should be ground without burning. By passing through the fire they lose at least one-half their virtue. Animal matter constitutes an essential part of the shell. This is all driven off by the fire. After drying in the sun, there is no difficulty in grinding them without burning. Wood ashes also, and salt, do good.

Much care should be exercised in the selection of seed, to secure the best varieties, and that which is clean. We think it well to soak the seed over night in strong brine, and roll it in plaster, or lime. Let all who can, try the experiment, if it be but half an acre.

Now is the time for budding *peach trees.* Severe winters and the yellows have made terrible havoc with these trees throughout New England. Unless we abandon this delicious fruit entirely, we must set about the growing of trees at once. All who have unbudded seedlings should attend to them now. Every farmer should be able to bud, and graft, and prune trees properly. If the buds are set early, and the ties loosened when it becomes necessary, but not removed, there is less danger from the frosts of winter. Other buds previously set, should now be attended to.

Composting should not be neglected. The barn-yard, the pig-stye, the cesspool, the privy-vault, should now be liberally supplied with earth, muck, weeds, brakes, and whatever, by decomposition, will add to the value of their contents.

Doubts have been expressed by those whose opinions we are wont to regard in other matters, of the value of muck, as a fertilizer. We are among those who have faith in mud,—who would put a muck rake into the hands of every farmer, and who verily believe that much that is valuable, may be raked out of it,—that it has *intrinsic* value, and moreover is highly valuable as an absorbent and retainer of the volatile ingredients of animal and mineral fertilizers.

Nuisances, if there are any upon the farm, should now be removed. Partially decayed stumps should be grubbed up, or burnt out. We would apply the stump-puller and make a clean sweep. In cultivated fields and grass grounds, stumps should no more be tolerated than carious teeth in the mouth. Brakes, decaying logs and brush-wood should be removed from pastures and beside fences, by all who would not keep a nursery of brakes and thistles, and other pestilent weeds.

Bushes and briars which so abound on an unthrifty farm, should now be removed—extirpated. In this matter we go for radiculture.

Autumn is the time for draining. Thousands of acres of the best land in New England are now producing nothing but brakes, lizards, foul grasses and miasma, which need nothing but to be relieved of surplus water. That New England is incapable of sustaining her present population, we cannot admit. Indeed, we believe that her soil, under proper management, would produce enough to support four times her present population. Shall we not do our part towards securing so desirable an object?

HABITS.—Like flakes of snow that fall unperceived upon the earth, the seeming unimportant events of life succeed one another. As the snow gathers together, so are our habits formed. No single flake that is added to the pile produces a sensible change; no single action creates, however it may exhibit, a man's character; but as the tempest hurls the avalanche down the mountains, and overwhelms the inhabitant and his habitation, so passion, acting upon the elements of mischief, which pernicious habits have brought together by imperceptible accumulation, may overthrow the edifice of truth and virtue.—*Jeremy Bentham.*

For the New England Farmer.

SWEDISH HORSES.

FRIEND BROWN:—Please copy the enclosed paragraph (cut from a paper) which corroborates my statement in relation to hard floors, and is slightly at war with your correspondent at Derby Line:—

"In Sweden the floors of the stables are planked, and the planks are perforated with holes, so that wet will not lodge on them—the bare boards being the only bedding allowed. To this lodging the Swedes attribute the soundness of their horses' feet, as it is quite uncommon to meet with a lame or foundered horse in Sweden which has been so stabled."

This practice, no doubt, begins with the foal. Hence the enduring soundness of the feet. Heretofore we have argued the filthy practice in diseasing the feet.

Nothing more need be said upon this point. It appears neither cushions for the feet nor bedding for the body are used in Sweden, but their horses are made hardy by omitting these kind practices. Is it not a mistaken kindness that we deal so largely with bedding?

A few years since nothing short of a feather bed was tolerated even in mid-summer. Now it is husks, hair, hazle, straw, or the soft side of a pine floor in preference. If you happen to visit a friend to tarry over night, and to take a sweat in advance, just take a peep into the fat, plump feather-bed—or take the reality and plunge in—to dream of warm water rain storms, or of drowning in your own prespiration—and waking unrefreshed, to find yourself an exhausted mass of vitality.

The comparison is not inapt, hard beds for man and hard floors for horses, in either case, to promote health. An elm plank floor or oak is cheaper and better than pine for horse stalls. All dealers and raisers of horses may learn a good lesson from the Swedish paragraph. H. POOR.

For the New England Farmer.

BARBARISM.

MR. EDITOR:—I have thought it might produce a good moral effect upon the public mind, to collect and publish such instances of barbarism as the following facts exhibit. I have in this communication collected only a very few cases; but I hope it may call out from among your intelligent correspondents, others who may be able to lay before your readers additional cases which may serve as a warning to barbarians, of whom not a few disgrace our land.

Mr. Emerson speaks of a sassafras tree which was "growing in 1842, in West Cambridge, which measured more than three feet through at the base, and rose without a limb, more than thirty feet, with a trunk very straight and slightly diminished, above which it had a somewhat lofty and broad head. It was nearly sixty feet high, and had been long growing by itself. It was felled and its roots dug up, *to allow a stone wall to run in a straight line!* Such

pieces of barbarism are still but too common. A tree so beautiful and lofty, and of such rare dimensions, such an ornament to a bare hill-side, sacrificed to the straightness of a wall!" Had this tree been sacrificed for the value of its root and bark, to be used in the manufacture of small beer, I should consider the motives that actuated its destroyers as immeasurably superior to those of the leaden-headed men, who set so high a value upon a mathematical line.

I can name another instance that fell under my own observation, in which a noble and valuable tree was sacrificed to Gunter. In the town of Beverly, four years since, there stood, about a quarter of a mile from the E. R. R. station, a Tupelo tree, of large dimensions, about forty feet in height, and probably one of the largest trees of this species in Essex County. As the Tupelo is very slow in its growth, I have no doubt this tree was 200 years old. A new street was laid out through the field where it grew. The street was named Rantoul Street, in honor of the late lamented Robert Rantoul, Jr., who was in his youth an "admirable Crichton," in all intellectual exercises, and in his mature years one of the most gifted orators and statesmen of the age. Had Mr. R. been consulted on the point the tree would have been saved. But the surveyors found that it would come about three feet inside of the road! It was therefore cut down, though it was the only tree that was worth saving that could be found near the street, from one end of it to the other.

The other case was one in which a tree, many years since, was sacrificed to commercial feeling. A gentleman interested in foreign trade was hindered in making observations with his spy-glass from his housetop, by a magnificent elm that stood in Bartlett Street, Beverly, intercepting his prospect of the bay. He prevailed upon the individual in whose land it stood, (an old gentleman well stricken in years) to cut it down. For this service he paid him ten dollars, "the price of blood." Had I been the owner of the tree, I should as soon thought of negotiating for killing one of the old men of my neighborhood. But if I had taken the "pieces of silver" and consented to destroy the tree, after the deed was done, I should feel myself under moral obligations to finish the series of enormities which I had commenced, by hanging myself, like Judas, on the next tree that could be found. PHILO-DENDRON.

A PROFITABLE VINE.—There is in the city of Dayton a grape vine, which is standing beside a well, over which it is trained on an arbor; well trained, no doubt, well trimmed too, and in every way well cared for by its excellent owner, Mr. A. M. Clark.

Besides those used by the family, fifty dollars have been received by the owner this year, from the sale of the surplus produce of this one grape vine, at $3 per bushel.—*Western Horticultural Review.*

☞ We are informed that the writer of the article in our last, headed, "Agriculture in Massachusetts," taken from the Boston *Journal*, labors under an entire misapprehension of facts in his statements with reference to the farm occupied by Messrs. Davis and Flint. These gentlemen had no intention, in taking the place, of engaging in model experimental farming, but simply of securing a quiet summer residence.

FALL PLOWING.

The advantages of Fall Plowing may be enumerated as follows:

1. In autumn, the team having become inured to work through the summer, is more vigorous and better prepared for labor than in the spring, and other farm work is less pressing in its demands upon the time and attention than in that bustling period. Let all the plowing be done which is possible in the fall, and still the spring work would give abundant employment to the farmer and his teams, in drawing manure, cross-plowing, cultivating, harrowing, &c.

2. In the fall, low, moist lands are generally in better condition for plowing than in spring time. We say generally, for this season low, moist lands are decidedly moist, at present. Still, we cannot hope for any better state very early next year, and if plowed as they should be, wet lands will suffer very little from water through the winter.

3. Stiff, heavy soils, plowed in autumn, undergo, by the action of water and frost, a more thorough disintegration—clays are pulverized and crumbled, and heavy loams and hard pan lands are acted upon in a like manner and with like benefit.

4. Heavy, coarse swards, full of rank weeds and grasses, can be better subdued by plowing in the fall—their roots are more apt to die out, and far less liable to sprout again than when plowed in the spring. The turf is better prepared, by its more advanced state of decay, for the use of the crops which may be sown or planted upon it.

5. Fall plowing disturbs the "winter arrangements" of numerous worms and insects, and must destroy a large number of these pests, and also their eggs and larvæ. This is a minor advantage, but one worthy of consideration, especially on lands infested with the wire-worm.

The principal objections to fall plowing are these:

1. The loss of that fresh friable condition readily permeable to air and moisture, and the consolidation of the soil by long exposure to changing and stormy weather. This, on soils of a light character, is a very serious objection to plowing in autumn.

2. The loss of vegetable matter and the gases o the same while in a state of decay, is another disadvantage. The latter is but a small loss, if the work is done late in the fall, but often, on hill sides, a large part of the soluble and floating organic matter is washed away by the heavy rains of winter and early spring time. The soil is also consolidated by the same influences. Heavy swards thus situated would sustain less injury than light swards or stubble lands.

The advantages and disadvantages of this practice may be appropriately followed by brief directions for performing the work.

1. Do it in the best manner.

2. Throw up low lands in narrow beds and cut cross furrows and drains sufficient to carry off at once all surface water. This will obviate one great objection to fall plowing.

3. Plow deep and narrow furrows—such will best secure the action of the ameliorating influences of frost upon the soil. A rough broken surface is better than a smooth one for this purpose.—*Rural New-Yorker.*

For the New England Farmer.

FERTILIZERS.

MR. EDITOR:—An argument adverse to the use of concentrated fertilizers is often made to this effect, that there is not, as there ought to be, the same production of fruit as stock.

Plants derive their nourishment entirely from the soil, by their roots, until their leaves are sufficiently matured to receive atmospheric nutrition. Consequently if the soil has been very richly prepared, and the stock has largely developed itself, it will require more from the air to complete its growth, blossoms and fruit, than it can take; because the necessary properties that it needs are limited; for this reason, fruit does not arrive at maturity, or if it does, there is not the quantity anticipated.

The question arises, what must, or can be used to give to plants this exterior food, that they may ripen a larger quantity of fruit? It is a slow and dear process to feed each plant with the acid and ammonia that would be necessary, in any concentrated form. Being not so much a chemist as a farmer, I had rather take farming apparatus in my experiments. Therefore, experimenting, I very often loosen, by hoe and cultivator, the soil which surrounds plants, as this favors the admission of air, and the formation of the acid required. Hence plants must advance rapidly when supplied with food below and above ground; until the maturity of the plant, and full formation of the atmospheric organs indicate that acid from the soil is not demanded. At this stage dryness of the soil does not essentially effect the plant, as all farther support is taken from the air.

Pruning is practicable and beneficial, as upon vines, shrubs and trees; also potato vines should have the blossom taken off; and whatever agency throws strength to the advantage of the fruit should be enforced thereto.

I draw from these remarks that something besides the fertilizer is wanted to insure a good crop. I contend for free speech and *free soil* consequently I must *agitate both*, to receive any benefit.

E. J. W.

For the New England Farmer.

THE GIFFORD MORGAN HORSE.

MR. EDITOR:—In the *Farmer* of May 24, a correspondent, "J. W. A.," wishes to know if there is a horse known as the "Gifford Morgan," and if so, by whom owned and where kept. In the *Farmer* of June 27, a correspondent from Ferrisburg, "P. J.," has attempted to give the desired information, but is not probably well informed, as his communication is somewhat erroneous. I am familiarly acquainted with Mr. ZIBA GIFFORD, of Tunbridge, Vt., who resides within two miles of me, and from him I can give you the information wanted, and in doing so it may be necessary to give you the pedigree of the celebrated horse known as the Woodbury Morgan. The Woodbury horse was sired by the original Morgan horse owned by Justin Morgan, and was folded in June, 1816. The dam of the Woodbury horse was an English mare owned by Lyman Wight, of Tunbridge, Vt. The Gifford Morgan was sired by the Woodbury Morgan in 1825, and died in October, 1850, and was 24 years old; he was owned and kept by Ziba Gifford, of Tunbridge, Vt., 16 years, and then sold to a Mr. Stuart, of Barnard, Vt., and was afterwards owned by F. A. Wier, of Walpole, Vt., where he died.—Major Gifford was the sire of the celebrated horse, known as the Green Mountain Morgan, owned by Mr. Hale, and several other noted stock horses of Vermont. The dam of the Gifford horse was an English bay mare whose sire was a horse known as the Henry Dundas, owned at the time by Oliver H. Brooks, of Bethel, Vt. The above statement of facts was given me by Mr. Gifford, and if you think proper you can use them at your leisure.

ZOPHAR VINTON.

East Bethel, Vt., July 14.

DO GOOD IN YOUR LIFE-TIME.

Some wealthy men are penurious in their charities during life, reserving their property for magnificent schemes of benevolence after death. The history of these posthumous legacies is not very encouraging, and Providence does not set the seal of approval on that covetousness which seeks to win the name and rewards of benevolence. The Baltimore *Sun* gives an instructive account of the McDonough estate:

"A number of papers, relative to the condition of the McDonough estate at New Orleans, have been forwarded to the Mayor and City Council of Baltimore, by Messrs. Emory and Peterkin, which embrace statements of considerable importance. It is stated by gentlemen of the New Orleans City Council that 'the income from the estate is about $55,000 per annum, and the expense about $27,000—leaving only $28,000 of net revenue, which is $1,000 less than the taxes on the property for the year 1856. So that the net income is insufficient to pay the taxes on it.'

Another said that the McDonough estate was worth now about one-half what it was when McDonough died—$5,000,000 then, $2,270,000 now. We have a bequest estimated, and fairly estimated, as worth $2,271,000. We have it under the control of able and accomplished gentlemen, and what are the fruits of their labors? John McDonough has been gathered to his fathers five long years. In a vain attempt to leave a noble monument of charity, he made a will as wonderful and curious as it is hopelessly impracticable. Over $250,000 have been spent in litigation; over $100,000 have been spent in charges and commissions; over $500,000 have been lost in interest and delays; over $500,000 have been lost in decay and pillage, and depreciation of the princely domain. And, in short, these five years past have cost the estate one-half its original value. But notwithstanding all this, not one dollar of charity has ever yet been received by this estate, not one poor child has ever yet been educated; not one poor negro has ever yet been sent to Liberia; nor the tears and sorrows of one poor orphan boy ever yet been assuaged. At every point and in every way has the last will and testament of John McDonough been frustrated and thwarted. For the year 1855 the report of the agents and commissioners informs us that the revenues were $49,000, whilst its expenses were $29,000. The value of the real estate in the city of New Orleans is $1,200,000. In the State of Louisiana $2,270,000. The net revenues of $19,805 have thus been for 1855 but ½ per cent. of the city property, and but ⅞ per cent. of the whole estate. The charges of commissions of agents, &c.,

for 1855, were near $15,000, or one-third of the gross revenues and three-fourths of the net revenues. The estate paid no city tax for 1854, which would have been for Baltimore's half over $15,000, and for the whole $30,000—or a sum greater than the whole net revenue. Such are the naked and startling facts displayed by the report. Nor is the end yet; three suits are now pending against the estate, each involving a large sum, and each carrying a new burden of expense."

For the New England Farmer.

LITTLE THINGS.

Or, a Walk in My Garden....No. 8.

Ha! ha! ha! There is a Tomato in blossom! How long I have nursed it to secure a feast of tomatoes. The richest, loveliest and healthiest of all the productions of my garden. Then why not laugh, and call out the wife to see it? Much of our pleasure is derived from witnessing the improvements around us. Our eldest daughter grows taller every day, and the heart of the parent is set aglow with the thought that she will soon be a woman. Those tomatoes, too, will soon be ripe, and the ingenuity of the cook will be put to the test in serving them up. Speaking of the tomato, one thing will be noticed by those who have had but little experience in their cultivation, and that is, that when started in the house we should not be in too great a hurry to transplant them. Not till the warm weather in June, will they grow in open air. I would like to know from medical men, whether they have met with cases of our autumnal fevers in persons who have made a daily, or even weekly use of tomatoes. My impression is that such cases are rare. But let us go along and look at those

EARLY FRENCH EMPEROR PEAS,

which I received from the Governor of Maine.—How beautiful and prolific they look. Then there is another nameless kind, which they say is just as good to boil when dry, as when green. Who can give me its name? Then there are the Prince Albert, the Marrow-fat, and several other kinds received from the Patent Office, all doing finely. I have learned a little secret, I believe, in raising peas. Spade up a strip in the fall, and incorporate some manure with the soil, and in the spring, stir the ground lightly with hoe and rake, plant them an inch in depth, and they will come forward earlier and bear the drought better than when planted shallow. The ground will be porous and allow the water to drain from it better than when spaded in the spring. But let us glance at the

ONIONS.

They are doing well. The onion maggot has not disturbed them. A neighbor tells me that no insect will eat tansy, (Tanacetum vulgare.) If so, why will not the expressed juice keep off the maggot, and that prince of rascals, the

CURCULIO,

who has taken nearly all my plums this year. I have no confidence in any remedy yet suggested, though it is best to keep experimenting, for I never yet saw so malevolent a looking fellow as this same curculio. I don't think much of the naturalist who should bestow on him so euphonious a name. I have thought of trimming some of my trees as compactly as possible, and putting round some millinet until they close their career for the season. I notice that they have also bitten the apple.

Bethel, Me., July 5, 1856. N. T. T.

CURRANT WINE.

The following recipe for making currant wine is sent us by one of the best physicians in Middlesex County:

Let the currants be thoroughly ripened before gathering, and squeeze them with the hand in a sieve, to avoid any mixture of seeds and stem with the juice. Strain the juice, and to every quart, add two quarts of water. To every quart of the mixture add one pound of sugar. Put this mixture into a clean keg, of a size adapted to the quantity, in order that by filling the keg the refuse matter of fermentation may be thrown out of the bung.

When all fermentation has ceased, bung the cask, and let it remain in a cool cellar a few weeks, until all sediment has subsided; then draw off the clear liquor into bottles. Very much of the future good character of the wine will depend upon the manner of corking, and as you may not be provided with a machine for the purpose, let me suggest to throw the corks into boiling water, which process will render them very soft in a few minutes, and in this condition they may be driven very tight with great ease.

EXTRACTS AND REPLIES.

BRAKES AND "LIVEFOREVER."

Please communicate through the *Farmer* the best method of killing brakes on land too wet and stony to plow; and also how to destroy liveforever.

Chittenden, Vt. R. E. B.

Remarks.—We know of no other method of destroying brakes than that of cutting them in August two or three times and grubbing with the hoe; after this is done fine manure spread on with some grass seed will be well,—for if the grass seed should start, and the brakes were kept down for a while, the grass might eventually get the upper hand and clothe your land with grass instead of brakes. That which is destined to "live forever" we cannot kill, but the attempt may be made on the plant which you call liveforever, the same as on the brakes. The first and essential thing to be done, in such a case as you describe, is *thorough draining*—that will accomplish more towards the destruction of the offensive plants than all cutting and grubbing.—Drain it.

—

DOUBLE SWARD PLOW.

I would inquire through the columns of the *N. E. Farmer*, if there is such an implement as a *double side-hill plow*, made, used or sold in this part of the country? If so, where can they be obtained?

Sunapee, N. H., June, 1856.

Remarks.—A *double* side hill plow is manufactured and sold by Nourse, Mason & Co., Quincy Hall, Boston.

CELERY PLANTS.

Is there any danger of getting too much, or too strong manure, especially liquid, around celery plants after they get fairly to growing? (*a.*)

Do they require more water than most other plants? (*b.*)

Do you draw the soil about the stalks until they are nearly grown? (*c.*)

Why not set the plants upon the top of the ground and then hill up? (*d.*)

Thorndike, Ms., 1856. J. B. THOMAS.

REMARKS.—(*a.*) There is. A liberal, not an excessive, manuring, is all the plant requires. Especially, unfermented, liquid manure should not be freely applied.

(*b.*) When first transplanted celery requires watering and a soil quite moist; after that, perhaps no more moisture than beets or parsnips.

(*c.*) For winter use, there is no need of drawing the earth about the plants, until within two or three weeks before frost is expected, say about the first of September, and then do it at once, keeping the leaves carefully gathered up.

(*d.*) A slight trench of three or four inches we regard as more convenient than a level, or a trench of a spade's depth. Without any trench it is difficult—without removing a large amount of earth—to cover the stems of the plants; and with a deep one the earth is constantly rolling down and obstructing the young plants.

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CEDARS AND OTHER EVERGREENS.

In reply to your question "what ails the cedars," I would say, that although not living in a cedar country, I observed a similar appearance with other evergreens, especially the hemlock, quite early in spring. I at first attributed it to the extreme cold of the past winter, but on further investigation I found the windward side of the tree was most discolored, and those trees which are rigid, like the common spruce, and not easily whipped about by the wind, were mostly free from blight.

In this section we had an unusual number of high winds late in winter and early in spring, and the snow was in many places, even at a distance from any trees of this variety, thickly strewn with small hemlock boughs and twigs, and I have come to the conclusion that the destruction of the evergreens is the effect of very severe and long continuous winds, when the leaves and small branches were frozen so as to prevent their natural freedom of motion. WM. F. BASSETT.

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CROPS IN CHESTER CO., PENN.

The harvest is mainly gathered, excepting oats. Grass was light, owing to dry weather. Wheat is an average crop. Corn is backward, partly owing to being late planted and wet spring. Some suppose the cause to spring from sowing corn taken from the bin, that was gathered before it was fairly ripened. Early potatoes here are an entire failure, and if there is not rain soon, the late ones will be cut off. Our pastures and fields are nearly burnt up. R.

Louisville, Chester Co., Penn., July 19, 1856.

LANGSTROTH'S BEE-HIVE.

The price of these hives varies from $2 to $6, according to the manner in which they are made. The $6 hives are double, but they are not so convenient as the single hive.

Langstroth's book on bees, we believe is for sale at the book-stores in this city; perhaps at the Warehouse of Nourse, Mason & Co.

—

APPLE TREE BORERS.

MR. BROWN:—Will mulching apple trees increase the working of the borers in them? I had a number of small trees in my garden, around which I put some straw, last spring to the depth of about 4 inches; on taking them up this spring, I found but very few that did not contain borers, and many were entirely destroyed, having the whole centre taken out, and it is very difficult to find them without taking the tree up by its roots. Perhaps you, or some of your correspondents, can tell me of some remedy that will keep them out.

BARREN GRAPE VINES.

I have a grape vine of a productive kind, taken from a productive vine, and grows with other vines that produce well annually, which blossoms full every year, and yet has never born a grape—and also those taken from this by layers are like it. Can any of the readers of your valuable paper tell me the reason, or give a remedy?

Middlebury, Vt. H. W. SHELDON.

REMARKS.—We are inclined to believe that mulching trees close to the stems is an invitation to the borer; that is, other things being equal, he will take the mulched tree in preference. In mulching it is not necessary to place the material near the stem—it is better to place it over the tender roots farther off. Then in the winter this mulching invites mice, and must be removed.

The grape vine spoken of is undoubtedly what is called a male vine. They are not uncommon—blossoming, giving out a delightful fragrance, and setting the fruit, but never perfecting it.

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STRAWBERRIES.

G. P. SANBORN, Esq., of Chelmsford, has picked from sixteen square rods, or one-tenth of an acre of ground, 450 boxes of strawberries, this season, which were sold in this market for 25 cents per box. Being at the rate of 4,500 boxes per acre.

Lowell, July 5, 1856. A SUBSCRIBER.

—

MORRILL HORSE.

Is there a horse known as the Morrill Horse; if so, where kept, and what is his pedigree?

Bridgewater, N. H. J. W. B.

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Will I. G. W., of Marlboro', N. H., inform me through the *Farmer* to what variety of plum the scion that grew nearly twenty feet in one season belonged—and into what variety of stock it was grafted? M. M. J.

For the New England Farmer.

A MACHINE FOR MILKING COWS.

There is no work about a farm that is so universally considered drudgery, and avoided, and dreaded by all the inmates of the farm-house, as the constantly recurring labor of milking. It is always the first thing to be done in the morning, and the last at night. And after a hard day's work at the wash-tub, or in the hay field, through a long, hot day in July or August,—to be obliged to sit down and milk three or four cows, is certainly no very trifling or attractive affair. To be able to perform this work easily and rapidly by machinery is therefore one of the most desirable steps to be made in the process of labor-saving inventions, in agricultural improvement. And when it is considered that in the United States alone, there were in 1850 6,385,000 milch cows, each one to be milked by hand twice every day for about three hundred days in a year; that the amount of the butter and cheese for that year, as shown by the census, was 418,881,000 pounds, in addition to $7,000,000 worth of milk sold, we get some idea of the magnitude of the labor to be annually performed in milking.

But it is not a difficult matter to perform all this unpleasant drudgery by machinery. The only wonder is that so simple a thing had not been discovered and used years ago. Just look at a calf while he is sucking, and consider how rapidly, easily and perfectly he would perform the operation of drawing milk from the cow's udder, *if he had four mouths instead of one!* And every one will see it is no very difficult affair to construct a machine with four mouths, that will do the same thing in the same way, quite as easily, rapidly and perfectly as the calf could do it! drawing all the milk into a pail or vessel, free from every impurity, and with very little exertion.

Acting on this idea, I have been devoting the leisure moments of some two or three years to experiments, with a view to perfect a machine for milking cows; and I am happy to say that I have succeeded beyond my most sanguine expectations. My application for a patent is now under examination in the Patent Office, and the machine will soon be presented to the public.

It is somewhat difficult to describe even the most simple piece of mechanism, without diagrams or illustrations, so as to make one's self understood; but this little machine is so simple, and its action so easily comprehended, that I will venture to describe it without cuts or figures.

In the first place, I take a large size pail, either of tin or wood, and fit on it a cover so as to make it air tight; then I construct a small pump in some compact form, so as to exhaust a part of the air from the pail. The pump made for my experiments (and which is described in the application for a patent) is a part of the cover to the pail, and being flat and thin, works rapidly and without friction, and does not wear so as to leak. It is only necessary to produce a slight vacuum, such as a calf might make with his mouth—I then connect four small rubber tubes, about eighteen inches long, with the top of the pail; and on the other end of each of these tubes, I fix a little cup of tin, glass, or any other convenient material, about two inches in diameter and three inches deep. Over the top of each of these cups is drawn a cap of thin, flexible rubber, having a sack or mouth in the centre, of sufficient size to receive the end of the cow's teat, with a small hole in the bottom for the milk to pass through. The cap fits to the top of the cup, air tight, by its own contraction, and also hangs around the end of the teat, but by its flexibility permits a free flow of the milk into the cup and through the rubber tube into the pail.

Having got the machine in readiness, I slip each of the cow's teats into one of the soft, flexible sacks or mouths, which can be done in an instant with the end of the thumb—the rubber clings around the teats and holds the cups in place. I then commence pumping slowly and easily, and the milk flows in a large, steady stream from each teat, through the tubes into the pail. The cow, mean time, is quietly chewing her cud, hardly knowing that anything is going on; so perfectly is the teat sustained by the rubber sack, that the suction hardly affects it at all, and there is no pulling, or flinching, or squeezing in any direction. All the while the milk is flowing at the rate of about two quarts per minute; at any rate, I have milked eight quarts of milk from my cow in four minutes, with a machine by no means perfect; because being the first and only one ever made, and got up only to experiment with, it has suggested improvements which will be embodied hereafter; I am entirely satisfied that a child or a woman can milk with this machine with perfect ease, faster than four milkers either men or women, can milk by hand.

But the chiefest recommendation of the machine still remains to be mentioned. The common method of milking by hand necessarily exposes the milk to more or less dust, dripping from the hands, and other kinds of filth, which often spoils its taste, and always gives one the idea that he is swallowing a disagreeable amount of unmentionable materials. Even the best and most careful milkers cannot avoid getting something into the pail that should not go there; this is proved by the universal custom of the straining milk immediately after milking, in all cases, and by whomsoever it may have been milked. But straining will not take out the drippings from the hands of careless, filthy milkers; and the result is, a very general complaint among consumers, of the bad taste of milk, too often attributed to the adulteration or dishonesty of milkmen.

This machine, however, entirely obviates this unpleasant difficulty. The milk is drawn directly from the udder into a covered, air tight pail, where no dust or drippings or filth can fall of itself, or be thrown by carelessness. The Irish girls cannot dip their hands into the pail to moisten the teats, as is their common practice, nor can the cow step into the pail, or kick it over, so as to spill the milk.

In short, I think the *milking machine* will be a great labor-saving improvement for the agricultural community, and a genuine comfort to both the cows and the consumers. Immediate efforts will be made, after obtaining a patent, to introduce the machine to the notice of the public, and to supply the market demand for them. It is not possible at present to say at what price they can be afforded, but probably they will not cost far from five dollars apiece.

JOHN W. KINGSMAN.

Dover, N. H., July 21, 1856.

ORDER!—Never leave things lying about—a shawl here, a pair of slippers there, and a bonnet somewhere else—trusting to a servant to set things

to rights. No matter how many servants you have, it is a miserable habit, and if its source is not in the intellectual and moral character, it will inevitably terminate there. If you have used the dipper, towel, tumbler, &c., put them back in their places, and you will know where to find them when you want them again. Or if you set an example of carelessness, do not blame your servants for following it. Children should be taught to put things back in their places as soon as they are old enough to use them; and if each member of the family were to observe this simple rule, the house would never get much out of order, and a large amount of vexation and useless labor would be avoided.

AGRICULTURE IN MASSACHUSETTS.

To the Editor of the Boston Journal:—In your paper of the 2d, you give a somewhat elaborate report of the proceedings of the Board of Agriculture at Westboro', and comment at some length upon the benefit to agriculture of the experiments and inquiries instituted upon that noble farm.

Nothing is more gratifying to the lover of his country's welfare than thus to see a leading journal giving its time, and room in its columns, to the furtherance of agriculture among us, an art which does not usually rise above the notice of the few who happen to be interested, in other parts of the world.

Every improvement in agriculture that tends to increase the amount of gross returns from the earth's culture, per annum, or that reduces the cost of cultivation or harvest, is of more real importance to the world than any other invention, discovery or improvement to the same amount that is ever made.

Whilst many of our enthusiastic countrymen have been for years devoting their time and money to this cause, others have held back and sneered at all prospect of valuable returns in such a cause.—The strongest opposition has always been met among those who ought to be the warmest supporters, *the practical farmers; they* have always experienced just so much labor and trouble, and get a certain amount in return, and they, particularly, are very apt to despise the so-called model farms, with their boards of officers, discoveries and improvements.

Our Massachusetts State Farm at Westboro' has been thus sneered at repeatedly, and many even of those who are among the progressives, and believe that something new may be discovered, and improvements made, have particularly objected to this place.

They have found fault with the laxity with which experiments have been conducted, at the want of accuracy and value in the returns and accounts of experiments, and at the general failure of the scheme.

Now, first, the scheme is by no means a failure, for very valuable experiments have been tried there and numerous discoveries made; and it may be said that those persons who point at the reports of the Board of Agriculture by the Secretary, C. L. Flint, Esq., as *meagre and inaccurate*, are not just either to the reports or the maker of them. The reports are always compilations of the reports of other societies, to whom all who object to inaccurate reports should look, *and of which* complain, not of that general compendium which brings them all together before the public. And, again, whoever complains that Mr. Flint's accounts of transactions, experiments, &c. at Westboro', *are valueless from a too superficial account of the commencement, course and result of experiments*, should remember that the whole matter there is under the charge of some dozen committees, who are responsible for the success of the farm, and failure of the undertakings there—not Mr. Flint, who is merely the Secretary and vehicle for bringing their experiments before the world.

Indeed, it may be said few men could be placed in a more onerous position, to be thus, to many people the proposer and manager of improvements and experiments for whose failure he is blamed, when the whole merit or blame appertains to others, *and he could not if he would control the matter.*

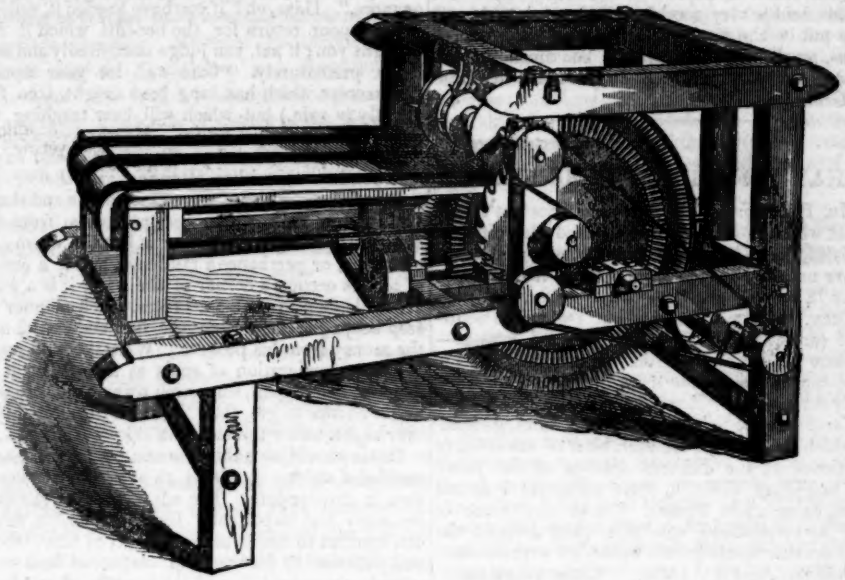
It is the very fact of the large amount of machinery involved and the expense necessary at such a place that discourages general farmers from undertaking improved agriculture; they say it is all very well for public institutions and rich men to dabble in experiments; they can afford to fail—we can't. What will they say when they see that the men who have the best means of judging of the success or failure of such experiments are willing to risk their own capital and time in similar private ventures.

You remember, perhaps, that Dr. W. T. G. Morton, of Ether and Suffolk Pig celebrity, has a fine farm in West Needham. Last year his farm took the premium as a model farm from the Norfolk Agricultural Society; and his dairy of six cows took the State premium of $150 for the best dairy in Massachusetts. Now this farm, fully stocked with blood stock, Suffolk pigs, and Alderney cows, Mr. C. L. Flint, in company with a friend, Capt. Davis, hired last fall just before harvest, and bought the crops and stock for some $5000, and are now carrying it on. Here Mr. F. has the opportunity to display his agricultural skill, and to try experiments that the State farm could never give: for here he has no controlling power to interfere with the success or management of his experiments, or to assume the credit where any results, or be responsible for any failures.

Although those who believe in book-farming versus the so-called practical, would have liked that a man in Mr. Flint's position, with all the science, knowledge and experience, his long continuance in the board of agriculture, and his connection with, and supervision over the Westboro' farm, ought to have given him, should take some poor, worn-out farm, there to show more triumphantly the power of science and books; still we cannot but be delighted that such an evidence as this should be given of the faith men really have in their own theories.

With this fine, rich well cultivated farm, and with the superior stock upon, it nothing but the most violent natural accidents can prevent Mr. Flint's trying and proving all the theories and experiments his reading may suggest to him, *and there can be no doubt he will furnish us this autumn with statements relative to the commencement, continuance and conclusion of experiments* that will demonstrate to the world, conclusively, that book farming is all that it pretends to be, and is capable of regenerating the worn-out lands of New England.

Yours respectfully, Rusticus.



MACHINE FOR STRIPPING BROOM CORN.

Among the numberless machines for saving labor, there are few more effectual or more important than this. The old mode, and it is the mode now generally practised, is a slow, tedious, expensive one; expensive, because it requires so much time of able-bodied persons who might be more profitably employed. The way in which it was done, was by placing two pieces of steel or iron on a large block, or some firm place, resembling, somewhat, the letter V, but having a spring to them so as to yield or advance a little according to the size of the handful of brush placed between them. The brush was then drawn slowly through, scraping off the seed, which fell upon the floor or in measures, mixed with more or less of the ends of the husk broken off in the process of scraping.

With the machine figured above the process is far different. It is supplied by belts moving over the platform on which the brush is placed crosswise, in handfuls, in such a position as to have the toothwheel seize the brush just where the hurll and quill join, and carry it to the cylinders, which commence their work at the tip of the brush, straitening it out, and stripping off the seed. The circular cutters cut the quills to a proper length if too long, and the brush leaves the machine stripped of seed, and in a perfect condition.

The machine is safe to use, as those tending it are not liable to those terrible accidents to which they were exposed in machines where the brush was held in the hands; it will also earn its cost in the saving of brush grown on 200 acres!

It is manufactured in a thorough and desirable manner, by Messrs. Burt, Wright & Co., at Harvard, Mass. See advertisement in another column.

WASHING CLOTHES.

Messrs. Editors:—I noticed in the *Country Gentleman* of June 5th, an inquiry about washing clothes and washing machines. I have never used any machine but the primitive one, which, I suppose, has been in use ever since clothes were washed; so I cannot speak from experience about other machines. But I have used for several years a washing fluid, which very much lessens the labor of washing, without injuring the clothes in the least. It is made as follows: take, for one gallon of water one pound of washing soda, and a quarter of a pound of unslaked lime. Put them in the water, and simmer twenty minutes. When cool, pour off the clear fluid into glass or stone ware, (for it will ruin earthenware, causing it to crack until it falls to pieces.) If the clothes are very dirty, put them in soak over night; wring them them out in the morning; soap them, and put them in the wash-kettle, with enough water to cover them. To a common-sized kettle or boiler full, put a tea-cupfull of fluid. Boil half an hour, then wash well through one suds, and rinse thoroughly in two waters. Those careful housewives, who have always washed their clothes twice, then boiled them, and then washed them again, will think this a very su-

perficial way of washing; but I know from experience, that my clothes not only wash easier, but look better, and last fully as long, as when I washed in the old way.

This fluid is very good for cleaning paint. A very little put in the water will remove grease or fly-stains, much better than soap. Too much of it will remove the paint also.—S. S. SOCWELL, *in Country Gentleman.*

For the New England Farmer.

HAY--HOW SHALL IT BE USED?

MR. EDITOR:—"Book Farming" has not taught me at what season it is best to feed the different kinds of hay to horses, oxen and cows—also sheep. I have no old hay, but have already housed some 10 or 12 tons of new hay—choice clover, best English hay and some that is about two-thirds white-weed (or daisy) and one-third of good grasses—this last was cut when the daisy was in the height of its bloom and of course the grasses were not quite ready for cutting. Now, the question is, which is best to feed now to horses and oxen? and, generally, which kind is best for each kind of stock above mentioned at the different seasons of the year? My neighbors differ in their opinions; I do not know, being a new farmer. I hope that some of your correspondents can give (and defend) the right opinion by their own well-tried experience.

Dedham, June 30, 1856. CHESTERHOLME.

REMARKS.—The common practice among farmers is to feed the poor hay during the coldest weather; and we think all who have had experience in feeding cattle, have noticed that stock eat meadow hay more freely during the cold weather of early, or mid-winter, than they do at other times. We can see no reason why the same kind of hay is not equally good for oxen as cows,—or cows as oxen. It is not customary to feed much clover to horses, and yet we should do it freely if the clover were cured well. Sheep are more fond of clover than any other hay,—but it must be cured without the loss of the leaves, and so that the stems retain their juices. The question is practical and interesting—who will shed light upon it?

TO CORRESPONDENTS.—Most of the communications sent us for publication, are of such a character as to make them interesting and instructive to readers generally. But there are occasionally those having more the character of an advertisement than anything else, and those we must insert in their proper department, or not use them. The correspondent who sent us an account of a favorite apple, with a long list of certificates of its excellence, must, we think, upon reflection, see that it appeared to us more like recommending an article for sale, than giving any valuable information to the public. The twenty-five thousand six hundred and eighty-four subscribers to the *Farmer*, or the Publisher, will not be seriously affected by the discontinuance of his subscription.

For the New England Farmer.

CARE OF STOCK.

"Ah, that same old tune, heard it these ten years or more." Have, eh? if you have heeded it, ridicule is but a poor return for the benefits which it has brought you; if *not*, you judge unadvisedly and condemn prematurely. "Care well for your stock," is a precept which has long been taught, (too frequently in vain,) but which will bear teaching for many a long year, yet future. He who keeps stock, does it for pleasure and profit; neglect and exposure conduce to neither, attention and shelter secure both. There are far too many cattle and sheep *kept* in New York, whose best protection from the chill blasts of vigorous winter is but the warm side of a barn, or perchance a rail-fence, and if a clump of bushes occupy a corner of the latter it is a wondrous blessing to the poor brutes. Such manner of *keep* keeps the flesh from the farmers' cattle, and the money from his pockets. Were the wild myth of the transmigration of souls as *truthful* as it is fabulous and absurd, some such owners and keepers might chance to get their just deserts, and shiver over night, under the lee of an alder bush.

Cattle should be stabled; warm, commodious and *ventilated* stables should be an appendage to every farm in christendom. The advantages of stabling are many and important. Increased health, flesh, and comfort to the animals, economy of time, labor, and patience in feeding, and saving of food consumed; these are a few of the benefits of stabling. Stables for stock should be constructed with an eye to convenience and comfort. Stanchions (or stanchells) are the best means of fastening. Behind the stanchell frame there should be a liberal allowance of space, say 10 feet. In order to secure the full benefits of stabling, which appertain to economy in feeding, there should be a manger in front, with a separate division in front of each animal. This is easily done by erecting a front for the manger some 2 feet, or thereabouts, from the stanchell frame, and about 30 inches high, then nail strips from the top of this front wall to the upper beam of the stanchell frame, place the partition board between these strips, and secure at the bottom by cleets nailed down upon each side of the partition boards.

By this arrangement each animal has its own allowance of food, and is prevented from infringing upon the rights of its mates, either by appropriating their hay or by striking them with its horns. Cattle thus sheltered should be regularly fed and supplied with water—should be turned into the yard to amuse themselves during pleasant days, and should be carded as often as semi-occasionally. Thus attended will they prosper, and so, likewise, will their owner. J. G. K.

SMALL FARMS.—We desire to impress on the common-sense reasoning of every man, the paramount importance of having no more land in cultivation than can be well cultivated. By no means attempt to manage more than you can manage well. Be a FARMER, not a mere earth scraper, lazily scratching up sufficient earth to destroy the face of the soil, and throw seed away, or you will always have to scratch hard for a living. But make your farm a source of pride, and it will surely become a source of profit. Make the object to be not to have MANY, but RICH acres.

VEGETABLE ECONOMY.

FUNCTIONS OF THE LEAVES.

The leaves are the most important parts of plants, performing various most essential functions in the vegetable economy. By them the actions of respiration, digestion, exhalation and absorption are carried on. The leaf, it is considered, is formed by an extension of the skin or cuticle of the plant, and if examined, it will be found that a skin may be stripped off from either surface, the interstices being composed of cells. The cuticle of the leaf is furnished abundantly throughout its surface with pores, called by botanists stomatas, through which water and gases pass out and enter. These are chiefly or sometimes wholly on the lower surface. By these pores, are carried on the respiration of air, and the exhalation and absorption of water. Experiments have shown that some plants exhale twice their own weight daily. A cabbage has been found to exhale from 15 to 25 ounces daily; a sunflower 20 ounces, on an average of 15 days, and on a warm, dry day, 30 ounces. A leaf of a sunflower weighing 31½ grains, with its stalk immersed in water, took up, in 4 hours, 25 grains; the leaf had increased in weight only 4½ grains, so that 20½ grains had passed off by exhalation. At this rate the leaf would take up its own weight in about 5 hours, and exhale an equal weight in 6 hours.

Plants of a juicy kind, or succulent, have usually very few pores, and require much light to stimulate their evaporation. Hence when melons are grown in a frame, as many leaves as possible should be exposed to the light of the sun, and the accumulation of water from within should be prevented. Some of these plants of the succulent kind, by reason of a deficiency of pores, may be preserved a long time without moisture. In the summer, exhalation is most active; and therefore plants cannot well be transplanted, because from the injury to the roots, absorption is checked, and is not sufficient to supply the loss by exhalation. In young plants, like cabbages and lettuce, the roots suffer but little, and plentiful watering will enable the plant to rally. By keeping plants in the dark, exhalation is checked, and thus a nosegay may be preserved a longer time from withering.

CABBAGES FOR STOCK.—Every farmer, and indeed, every person having a garden and a hen, a pig or a cow, will do well to have some cabbage plants with which to fill the ground when early crops have been removed too late for turnips. The cabbage is a sure grower, and faithful in its mission, whether put out early or late. To secure good, firm heads for table use, requires considerable care in kinds, times, soil, and culture; but to secure a good growth of highly nutritious and valuable food for stock, requires but a small measure of regard for either.

The cabbage contains a full proportion of nitrogen in addition to the oxygen, hydrogen and carbon, the elements of the great mass of the vegetable kingdom. In this, it is closely allied to animal food, and on this account as well as others, it is a valuable addition to the usual food of animals. We believe the cabbage worthy of high estimation as a regular field crop, not merely for the pork and cabbage trade, but as food for cattle and hogs, and that it will be extensively cultivated for that purpose; but however this may be, we are confident that the cabbage affords the best means of filling the ground which, from any cause remains vacated the first of August.—*Cultivator and Gazette.*

For the New England Farmer.

THE SPARROW AND THE HEN.

MR. EDITOR:—I know not if there be anything new in what I am about to relate; at any rate, we who have been brought up surrounded by brick walls, look upon many of the common doings of dame Nature as something wonderful, and many of her every-day ways as anomalous or passing strange.

The first instance I have to record is that of a little brown sparrow, which built its tiny nest in a honeysuckle vine trained on a trellis close by the front door. The bird built its nest and then was absent for nearly a week. At length she appeared and laid two little green-colored eggs, each about as large as a good-sized pea. I am very sure there were only two eggs, for I, as well as many others, looked into the nest very frequently during the absence of the parent; we thought she was managing very poorly, her absence, as I have remarked, being frequent and prolonged. She knew, however, better than we could tell her, for lo, and behold, one morning there appeared in the nest four young ones, all, so far as we could judge, perfectly formed, and in no wise connected; she brooded them from the 21st of June until the 1st of July, on which day the upper tier of two flew, and the day following the remainder. I said they flew in tiers, for the nest was so small, they could not all lay on the bottom, and the old bird used to perch in the honeysuckle vine at night. The nest still remains, and shall be respected, and not a straw suffered to be touched or molested. I am in hopes Mistress Sparrow will repeat her performance another season in the same place. I assure her she shall be protected, and that her proceedings have given the occupants of our domicile, as well as numerous visitors, great gratification. At any rate, such doings are well worthy of record.

My ornithological acquirements are so limited, I know not whether to consider the above a regular performance, or a *lusus naturæ*. I can only repeat, well done, Mistress Sparrow! four birds out of two eggs, all reared safely, and I am in hopes, now enjoying themselves amid summer beauties. I would add, that during the whole time the parents seemed perfectly fearless, not in the least alarmed, although numbers passed in and out of the door during the time, and all stopped to observe and admire. The nest was about midway up the trellis so that a person of common altitude could look directly into it. The young birds appeared in a very callow state when they left the nest.

The next act on the part of the feathered tribe, of which I would make brief mention, is that of a hen belonging to a near neighbor of mine, Mr.

John Walker. Mistress Biddy hatched out a fine brood of chicks, but at the expiration of ten days from their announcement into this "breathing world," commenced laying, to which practice she has adhered with true hen-like pertinacity for some three weeks, retiring at stated moments to deposit her egg, and then returning to her maternal dutes. It is, indeed, curious, to say the least, to see this model hen engaged in making her daily egg deposit, with her little ones about her; some on her back, some under her wing, and otherwise chicken-like disposed. I know not in what light to view this matter of well-doing, but commend her example as well worthy of imitation by all hendom; I think her kind is rare. W.

Somerville, July, 1856.

REMARKS.—The above are some of the pleasant attractions of country life. We do not believe there is a heart, we care not in whose bosom it beats, if it beats at all, that is not touched by these simple relations. We can easily imagine that dame Sparrow was in a hurry to see her offspring, and commenced her sitting process before the usual complement of eggs was laid, and that *the other two* eggs were laid *after* incubation had commenced on the first two. Birds build among the climbers immediately about our doors every year, and are a source of pleasure to the whole household. It is next to impossible that children brought up amidst such scenes shall be selfish or indifferent to the welfare of the world.

For the New England Farmer.

BARN SWALLOW.

HIRUNDO AMERICANA.

It is supposed by many persons that this bird in autumn descends to the bottom of ponds and rivers, and there buries itself in the mud until the return of spring; such people entertain a very absurd idea.

If we compare the structure of this bird with those animals that are amphibious, we shall discover a wide difference in the construction of their bodies; the swallow, who is made for an inhabitant of the air, has his whole frame-work made light and buoyant; and to see how nature intended that he should be powerful in his element, the sternum or breast bone is exceedingly large, covering the larger part of the abdomen, and formed below like the keel of a ship, to which is attached the pectoral muscles, which are employed to move the wings, and which in weight exceed all the other part of the body; these constitute the untiring powers that this bird possesses, and which enable him to fly with a velocity as great as a mile in a minute. It also becomes necessary, as they are to be buoyed in the air, that they be specifically lighter; for this the bones, the flesh, and the plumage, are admirably adapted. The lungs are full of vessels through which the air passes into the chest, decarbonizing the blood as it is drawn in, passing at the same time into all the cavities and air-cells of the body, and, likewise into the bones, which become, as M. Chabrier says, "a light gas, being dilated and rarefied by great heat; not only is its specific gravity probably diminished, but it must also contribute to diminish that of the bird by inflating it and supplying all vacancies during the flight."

They, therefore, being thus constituted, must possess a knowledge of the changes in the atmosphere before, and quicker, than any other animal. It is well known that before bad weather, waterfowls retire from the sea, parade the shore and creeks, and are exceedingly clamorous; the humming bird sits sadly by the half-closed flower, the eagle stands erect on a withered branch for hours, under the lee of some tall wood, while the groves are silent, save now and then a faint chirp from some dumpish warbler; but on the change of the atmosphere to fine dry weather, we see the waterfowl stretching far over the sea, the humming bird darting with a speed that almost eludes the sight, the eagle rising on his broad wings, circling higher, and still higher in the clear blue sky, while the woods resound with the sweetest melody. Can it, then, be possible, that an animal so curiously and finely wrought, as to be susceptible of the changes of the atmosphere, could undergo so great a change as they would be subject to, in being immersed in water, or buried in the mud, at the bottom of our rivers, for six months of the year? Could they endure life, with all those air-cells in their bodies, those hollow bones, and vascular lungs, as full of water as they were with air? No, they are migratory, and pass to another climate to spend a more active and joyous season.

This bird is the loveliest and most beautiful species of the swallow tribe; with the tidings that the "swallows are come," we associate all the loveliness of spring, the fields spread in their newness, the green leaf and painted blossom burst from their buds, and "ruddy summer," with its long, warm mornings, maturing noons, and tranquil evenings.

> "So when the earth smiles with a summer's ray,
> The wanton swallows o'er the valleys play;
> In sport each other they so swiftly chase,
> Sweeping with easy wings the meadow's face,
> They seem upon the ground to fly a race."

Danvers-port, 1856. A. F.

A FEARFUL SCENE IN A SCHOOL-ROOM.—The Cleveland *Herald* has an article stating that great havoc has been committed by dogs among flocks of sheep in different parts of the State. One farmer had 90 killed in one night another lost an entire flock of 30, and so on. The following incident is said to have occurred in the township of Orange.

A middle-sized savage dog belonging to Mr. Honeywell, rushed into the school-house among the children, biting them right and left. One little girl was dragged all around the school-house by the brute, and six children were bitten. One little girl had a large piece of flesh taken from her hip. The children sought refuge under the benches and wherever they could to get out of the reach of the dog. A man came with a club to the relief of the children, and killed the animal. The dog, according to the statement of the wife of the owner, had been tied up through the winter and spring—of course, because it was a dangerous animal. One of the owner's children were among the bitten. Mr. A. M. Lloyd, from whom we get the facts, was at the spot soon after the occurrence, and the women were cleaning the school-house, and scrubbing the benches, fearing that the dog may have been mad. As the animal was killed, of course it cannot be known whether it was mad, or only naturally savage. The children were under treatment, but of course their friends will suffer under fearful apprehensions for a long time.

OUR OPINION OF TOBACCO.—The editor of the "*Middle States Medical Reformer*," published at Millville, Pa., in answer to a correspondent who asks his opinion of "tobacco chewing," thus expresses himself:

Though treading on sensitive ground, we shall not refrain from placing our "opinion" upon record. We view the use of tobacco as a vile, pernicious and expensive habit. It is derogatory to the virtue of *personal cleanliness*, injurious to health, and a perpetual drain upon the purse. Its tendency is to engender debility, imbecility, disease, and premature death. It tends to exhaust and derange the nervous powers, to induce *dyspepsia* and all its kindred evils, and as it is a recognized principle in nature, that whatever enfeebles the body must, in the end, and in the same degree, enfeeble the mind, it reaches the intellect, and exerts a ruinous effect upon the mind. Thus affecting *body* and *mind*, it should be totally abandoned. Yet we painfully realize the fact, that the habit is on the increase. O, could those young men who are about *learning* its use, but realize the evils it has in store for them, they would turn away with loathing and disgust, and ne'er touch the "vile stuff" again.

LETTERS FOR CALIFORNIA.—The Post-Office Department has adopted a system for securing the delivery of letters by mail to California, and the Territories of Oregon and Washington. The plan, which is as simple as it is effective, may be explained by the following example: Suppose a letter has been directed to Mr. Frank M. Caldwell, (formerly of Pennsylvania,) Sacramento, California; but it is feared that Mr. Caldwell may not be in Sacramento, and hence may not receive the letter. In this case deposit the letter *as usual*, in the mail for California; but, at the same time, send to the New York Post-Office *a slip of paper*, upon which is copied the *address* upon the letter. This slip of paper must be enclosed, together with a three-cent postage-stamp, in an envelope, and directed to the "Pacific Mail List," New York Post-Office. The address on the slip of paper thus received at the New York Office will be entered in its appropriate place in the "Pacific Mail List," which list is printed, and being sent by each mail to each and every post-office throughout the entire Pacific region, it will point out to Mr. Caldwell, wherever he may be, that a letter for him has been sent to the Sacramento Post-Office. Thousands of letters may thus be safely and *speedily* received, that would otherwise become dead letters. This mode of registering a letter does not require one minute of extra labor to perform it.

An envelope directed to the "Pacific Mail List," pays postage like ordinary mail matter, and must be pre-paid. The three-cent stamp enclosed in the envelope defrays the expense of publication, and must *not* be pasted, but simply enclosed. The slip of paper sent to the New York Office, should be cut to fit the envelope loosely, and enclosed without folding. When two or more addresses are enclosed in the *same* envelope, each address should be copied on a separate slip of paper. Cards will make a good substitute for slips of paper.

It is advisable to give in the address on a letter *the name of the State* from which the person for whom the letter is intended emigrated to the Pacific coast; but, as in many cases this may not be known, the letter may still be registered by sending its address to the "Mail List." We have given the above extended notice, believing that to many of our readers the plan may prove of much service.

For the New England Farmer.

USE OF SALT—SEEDS FROM THE PATENT OFFICE.

MR. EDITOR:—In the article I sent to the *New England Farmer* in regard to the benefit of salt being applied to the plum tree—perhaps my language was a little strong, and I see by your issue of to-day a correspondent has injured one of his trees by its too liberal application. I have no doubt but what this may be possible. It is a powerful stimulant, and my idea is, that its virtues have not begun to become known in farm economy, as yet. What I meant to convey in its use, as indicated in my article, was, that it is a first rate thing for diseased and unthrifty plum trees—that it would almost invariably cure the part diseased, in a good degree destroy the ravages of the curculio, and powerfully promote the growth of the tree. I have found it also a benefit to the quince, and its application sown broadcast, as a preliminary before plowing the garden in the spring. More particularly is this the case where it is the intention to use hog manure. That salt is destined to become more generally into use, I have no doubt. But in making use of new things, too much caution can hardly be used by farmers, when approved and useful things are already known.

Early in the spring, I received from the Agricultural Department of the Patent Office a package of seed, all of which I have planted. Among these were three kinds of lettuce, the Malta cabbage, Admiral cabbage and Hammersmith cabbage, New Mexican white flint corn, Flottbeck Quintal cabbage, white onion, and three different kinds of dwarf beans, and a tall white runner bean, besides several other varieties of seeds. In making mention of this, my object is to call attention to them, and first the lettuce. Each of the above mentioned is of a very superior quality, particularly the Malta; its color is of a light, yellowish green, very bright, crimped leaf with serrated edges; as taken from the bed its taste is mild and pleasant, none of, or very slightly, the bitter tast of our common lettuce. It forms a beautiful and noble head, with considerable body to the leaves. Every way worthy of cultivation, either for home use or market. The Admiral very much resembles the Malta, its color nearly the same, a little lighter, not quite so much body to the leaves, nor does it form so good a head. Its taste has a little more of the bitter to it. Edges of the leaf smoother and brittle. Very excellent variety. The Hammersmith very much resembles a lettuce much cultivated in gardens hereabouts. I should think it the same thing, judging from its appearance, taste, &c.; if any difference, it is more brittle and tender, and not quite so bitter. Its leaves are very crimply and dark green, and is prone to run to seed, unless its growth is rapid and planted in deep rich soil, with thorough cultivation. They all like deep rich soil, with considerable moisture. I may have more to say in regard to these hereafter. I had supposed, from the looks of the seed,

that the New Mexican white flint corn was common about here, until I planted it. At the time of writing this, it stands from five to six feet high in my garden, with no appearance of the "spindle," with a broad, heavy, dark green leaf, looking very much like our southern corn planted here; leaf of a darker green color. It certainly presents a very beautiful appearance while growing in the garden; of course, I cannot speak of its merits "in the pot," as yet, but it has the reputation of being most excellent cooked in its green state, or when dry, ground into meal and used the same as our common Indian meal.

Before closing, a few words in regard to the dwarf white podded beans. These I planted too early, about the middle of May, just before the long rain we had at that time, and I expected the seed would rot in the ground. But they came up well. The color of the seed, a brownish black, smooth, and shining. The leaf and stem of the plant quite dwarfish, and of a pale or light green color, presenting a very delicate appearance. A profuse and early bearer. Pods of a yellowish white, I should say cream color, when cooked as *snaps*. We had our first mess from them the early part of this week; they have no strings to them, very tender, and a peculiar pleasant taste; worthy of a further trial, and will undoubtedly prove themselves a valuable addition to our already extended list of beans. More anon. NORFOLK.

July 19th, 1856.

For the New England Farmer.

HOW TO SAVE AND MAKE MANURE.

MR. EDITOR:—I have in my little place, (and I recommend it to every one who is building a house) a reservoir laid in cement, into which all my drains run, from privy, kitchen, &c., and also the water from one side of my roof after passing through the privy vault. In this way I make a great deal of liquid manure, which I have been in the habit of pumping out and putting on my little half acre of grass, trees, shrubbery and garden, with large watering pots, and also of pumping into a cart load or two of loam hauled for the purpose. Every spring I clear out of my cellar and back yard a large heap of well sifted coal ashes, from furnace and range, which it has sometimes been a bill of expense to me to have carted away. Now I want to know if it would make good manure to mix this ashes half and half with loam, and pump my liquid manure into it. (*a.*)

Can any of your scientific readers tell me whether hard coal ashes contains ingredients in a sufficiently active state to absorb the ammonia of the liquid, or would any other chemical change be produced which would convert what I have always supposed to be an inert and valueless material into an active fertilizer? Have any of your readers ever tried a similar experiment with hard coal ashes?

July, 1856. SUBURBAN.

REMARKS.—(*a.*) We have no doubt, whatever, that such a mixture would be a highly valuable manure. Plenty of evidence has been given that coal ashes alone is a valuable fertilizer, and when mingled with the other materials mentioned, the whole must be among the best.

For the New England Farmer.

"THE CLOVER YEAR."

It is a common remark of the rural population, "this will be memorable as the clover year." Passing through Worcester county and the eastern part of Hampshire, a little more than a week since, and though very familiar with this region for the last twenty-five years, I never saw so much clover, red, and white, as at the present season. The air is fragrant with the perfume, and the mowings and pastures vocal, as it were, with the hum of the various species of bees, actively employed each shining hour in gathering honey so profusely secreted by the *trifoliums*.

Had the farmers generally served or applied plaster, ashes, guano, or any of the artificial manures, they would have remarked, "the effect is wonderful!" The clovers, though not grasses, are very successfully cultivated with them. White clover for pasturing should be mixed with other grasses. Pure clover pastures, when fed by sheep, have been known to induce disease. Hence the importance of mixing with the grasses, whether the white or red, or any other species of the genus, trifolium.

On a comparison of the nutritive matter, of equal quantities of the clovers, white and red, it appears, that the white is inferior, the proportion being 5 to 4.

It is said by Sinclair, an English writer on the subject, that the produce of clover is usually very great after a very severe winter, and inferior after a mild winter.

It is a common remark among the farmers, that land when it produces clover readily, or as it were, spontaneously, is in a good condition for any crop. I heard the best farmer in the Connecticut valley say a few days ago, "I never sow clover seed when I seed down a piece of land, only Timothy. There is clover seed enough in the soil."

Said an M. D., "we shall have a hard winter." "Why, how do you know?" "Because there is so much red clover to furnish the honey bee with an extra amount of honey." "But, sir, did you know that the honey bee does not work on the red clover?" "No!" "It is said by the best Naturalists and most careful observers that they do not."—Thus was explained the sign of a hard winter.

RUSTICUS.

For the New England Farmer.

STRAWBERRIES—COAL ASHES.

The present season my crop of strawberries has been unusually abundant, the size of the fruit large, and the quality in every way satisfactory. For the information of your readers, I will give you a brief account of my treatment of the vines. My beds were mostly renewed last year and the year before, and are a mixture of Boston Pine and Hovey's Seedlings. During the last summer and autumn great pains were taken to keep them free from weeds, and each plant in a hill by itself. For this purpose they were often hoed, and the runners cut off. In the fall I covered them with old hay and litter from the garden, but put on no manure.—When the snow was a foot deep in March, by way of experiment, I had a coating of hard coal ashes put on the snow and the beds. This, as the snow melted, sifted down on the plants, and when the ground was dry the coarse particles were raked off.

The plants put out leaves and buds early, and with great vigor, many of the former have grown near a foot in height, the leaves of an uncommon size, and the yield was I think extraordinary.

Now, whether the hoeing, the snow, or the coal ashes produced the result I, cannot say, but as I have faith in coal ashes as of some efficacy, and it is quite evident they have done the plant no harm, my opinion is that there is something in the ashes adapted to the wants of the strawberry. If this is the fact, it will be well to make it known, and I trust others will try this and other experiments with this article, and let the public know the result.

Brookline, July, 1856. L. T. S.

"NO."

There's a word very short, but decided and plain,
And speaks to the purpose at once;
Not a child but its meaning can quickly explain,
Yet oft 'tis too hard to pronounce;
What a world of vexation and trouble 'twould spare,
What pleasure and peace 'twould bestow,
If we turned when temptation would lure and ensnare,
And firmly repulsed it with—"No!"

When the idler would tempt us with trifles and play
To waste the bright moments so dear;
When the scoffer unholy our faith would gainsay,
And mock at the world we revere;
When deception, and falsehood, and guile would invite,
And fleeting enjoyments bestow,
Never palter with truth for a transient delight,
But check the first impulse with—"No!"

In the morning of life, in maturity's day,
Whatever the cares that engage,
Be the precepts of virtue our guide and our stay
Our solace from youth unto age!
Thus the heart shall ne'er waver, no matter how tried,
But firmness and constancy show,
And when passion or folly would draw us aside,
We'd spurn the seducer with—"No!"

For the New England Farmer.

ABOUT POULTRY.

Friend Brown:—I must say that I am highly pleased with the *N. E. Farmer;* the moment it arrives it is read in my family with pleasure; although there are some pieces that do not exactly agree with my experience, still there is much that is very useful. As I am an old man, may be I had better give you some of my experience. I was born a farmer's boy, have owned a farm and lived on it for forty-five years; in that time I have bought and sold a goodly number of oxen, cows, sheep, hogs, guinea pigs, jackasses, mules, and all kinds of poultry, from the full-blooded Cochin China down to the little white bantam. The former and the latter are "small potatoes;" the Polands I should like if their flesh was a little better, and if they could see like other hens, and would not be under foot in the stable; other animals often step on them. The frizzled fowl, if kept at all, must be for fancy. For fifteen years I have been trying to get a kind that would lay from two to four eggs a day. Two years ago I had all Polands; they lay well, but I have now a mixed breed. The Chittagongs lay large eggs, but their flesh is not the best; they have large bodies, but after all, I like smaller hens; the old-fashioned yellow legs, I think, will lay as many eggs, and are as profitable, taking all into consideration; when cooked for the table I find the great folks like them best. I might say something about all kinds, but it would only take time, and when the needle came to settle it would point directly at the half-blooded yellow leg Dorkings, one nearly like the old native sort. All pullets lay the best. I never keep a hen more than three years, they are apt to get so fat that they will not lay an egg a month. Were my hens all old, I would not feed them only once a day, and then not all they would eat.

Turkeys are profitable, if your farm is right for them. Geese and ducks are good eating, and very profitable if you live near a pond of water, and can keep them away from your neighbor's premises. I have bought and sold from two to three thousand horses and a lot of mules, and some jackasses. I have lived on the Green Mountain all my days since 1816, and have seen a great deal that relates to the farm, and have laid up a large stock of

Experience.

For the New England Farmer.

CULTURE OF ROOTS.

Friend Brown:—I notice in a late number of the *Farmer,* a paragraph urging upon farmers the importance of raising more roots than they usually do, which is a timely suggestion.

It would certainly be for the interest of every one to bestow more attention upon crops that are easily cultivated. If any one will take the right course in the culture of roots, he will double the value of his crops over that of hay for the purpose of feeding stock. The course I would pursue, is to take a piece of grass land that will not produce more than a ton or so to the acre, and then with a plow of the right construction, so as to completely invert the sod, a piece of ground can be had for the purpose with a smooth surface. Put on about twenty cart loads of fine manure to the acre, and work it into the ground well with the harrow; sow rutabaga seed at the rate of a pound to the acre, about the middle to the twentieth of June, and with good care, thinning them so that the plants be left a foot apart, and I feel confident that a crop of at least four hundred bushels can be obtained from an acre, worth twenty-five cents a bushel. I would here suggest a plan in sowing, although it is no new thing to some, but may be so to many, which is to sow three feet apart, instead of the old way of eighteen or twenty inches, thereby avoiding much severe manual labor with the hoe, substituting horse-power with the cultivator, which will lessen the expense of raising roots, as every one must know who has tried it.

I wish to inquire of you or your numerous readers, if you know of any successful experiments ever being made in the way of cooking turnips or other food for stock? I have in my mind a plan that I think would work to a charm. It is to procure a large boiler that can be seen and purchased at Nourse, Mason & Co.'s, manufactured by Mann & Torrance, of N. Y., holding about two barrels, or five bushels; after being sufficiently cooked, take them out into a large trough, then add the requisite quantity of meal, and a little salt, mashing the whole together while scalding hot. After it has cooled enough put it into boxes or on a clean floor, and I know it would be eagerly devoured by them, which I think would be better than in a raw state

Do you not imagine, Mr. Editor, that food thus prepared, would afford a delicious repast to cows giving milk during our cold winters? as much as the difference would be to a person living on bread and water, to change it to smoking hot potatoes and bacon, hot rolls and coffee.

And now I wish to repeat my inquiries if you or your readers know an instance of its being tried, and with what success; for unless it will pay we should have nothing more to do with it, as a matter of course. There are many, doubtless, who if asked their opinion, individually concerning the information sought for, would give an answer in a verbal way; now let all such take a pen in hand, put it upon paper and send it to you for publication, and I doubt not it would make its appearance in your paper in due time. J. UNDERWOOD.

Lexington, 1856.

REMARKS.—The above article got astray or it would have been published before. We have cooked various kinds of roots, such as turnips, carrots, parsnips, &c., in large quantities for swine, and upon which they throve well and profitably. Who will tell us of the effect of such a process with neat cattle?

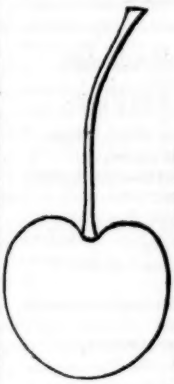
CHERRIES.

There are two, at least, striking advantages in the cultivation of the cherry. First, we get a quick-growing, handsome shade tree,—one that is ornamental to the grounds, and that will afford a fine shade for us to repose in when we have an inclination that way. Secondly, we get a fruit at a cheap rate, one which all may have, and one that is esteemed by all who indulge in eating any fruit.

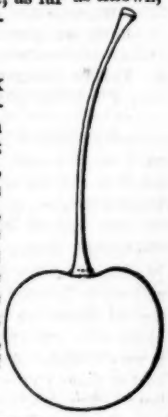
In speaking of its uses, Downing says "that as a pleasant and refreshing dessert fruit, the cherry is everywhere highly esteemed. The early season at which it ripens, its juiciness, delicacy and richness, render it always acceptable. While the large and fleshy varieties are exceedingly sweet and luscious, others which are more or less acid, are very valuable for pies, tarts, and various kinds of cookery." Persons setting trees will do well to remember that they may get shade much sooner from cherry trees than from elms and maples, and fruit a good deal sooner, even if the boys and birds take a portion.

MAY DUKE, *Early Duke.* Medial; obtuse heart-shaped; very dark red; flesh tender, melting, juicy, slighty acid, but at full maturity rich and excellent. 15th to last of June. Answers to cook early, and is long in use. A week earlier than Black Tartarian. Tree of moderate growth, large, spreading, a great bearer. One of the best early cherries, suited to various climates and soils. It endures the climate of the North as far as Maine. Fruit middling hardy.—In this region are large trees 40 or 50 years old. Foreign.

ROCKPORT BIGARREAU. Very large; roundish, heart shaped; beautiful clear and deep red, on amber ground; flesh yellowish, firm, juicy, with a sweet, rich flavor. Ripens from 20th to last of June.—Strong, upright growth. As it is large, handsome, and excellent, it is highly valuable both for the market and private garden.



RICHARDSON. Very large, heart-shaped, but rather short, and tapering much to the point; very dark red, inclining to black; stem rather short and slender. Flesh deep red, half tender, juicy, saccharine, rich, luscious flavor. Last of June and first of July. It keeps well on or off the tree. Good grower and bearer, rather upright, hardy in tree and fruit. Original tree, as far as known, in the garden of J. B. Richardson, Esq., Boston.



MANNING'S LATE BLACK HEART. Large medial; roundish heart-shaped; dark-red; stem long, middle size; flesh bright red; half tender, rather juicy, spirited, with a pleasant, luscious flavor. Ripens 1 to 10 of July, with Honey Heart. We have seen the original tree at Salem; it is hardy, very vigorous, large and beautiful, from its immense foliage, which screens the fruit from the birds. Great bearer, pretty large. — *Cole's Fruit Book.*

WESTERN FARM JOURNAL. — Louisville, Ky. JAMES P. HALL & Co., Proprietors, W. D. Gallagher, Editor. This paper has for its motto, "The field, the forest, the fireside." It is in large quarto form, on good type and paper, and filled with well written, practical articles. The Editor writes as though he understands the wants of the farmers of Kentucky, and is determined to supply them. We place the *Journal* on our exchange list and wish it great success.

☞ The *Austrian Gazette* states that for the three years, in which horses' flesh has been sold at Vienna, 3,925 horses have been slaughtered, which have furnished 1,902,000 pounds of meat.

BONE-SICKNESS IN COWS.

Mr. J. A. Nash, of Amherst, Mass., writes as follows to the editor of the *Country Gentleman:*

In your paper of a recent date I perceive an inquiry by A. T. Tuttle, of Enfield, to which I deem it important that a correct answer should be given, both for the gratification of that gentleman, and also as affording information important to all dairy farmers on old lands.

It appears that Mr. Tuttle's cows have a morbid, sickly appetite for old bones; that those most affected with the disease, gradually lose their flesh and become poor; that, although they eat well, they appear dumpish, stiff in the joints, weak across the backs—so much so that they can hardly move. Mr. Tuttle has graphically described the symptoms of a disease to which milch cows, on old, worn-out pastures, are always liable; but he has failed to give information respecting his land—whether it is old, or recently cleared, and if old, whether it has been long used for dairy purposes, all of which is important to an intelligent answer to his inquiries.

In the absence of positive information, I shall presume that his lands have been long used for dairy purposes. Indeed the single fact that his cows are thus affected, affords strong presumptive evidence that his lands, both mowing and pastures, but more especially the latter, are dairy-worn. If so, the bone-sickness of his cows is easily pointed out; and although its application may be somewhat expensive, yet the expense incurred will afford a paying investment. The cause of the disease, its cure as now existing, and the prevention of recurrence, are the points claiming our attention.

It should be born in mind that the cow creates nothing. It is true also that the grass creates nothing. Certain inorganic substances exist in the soil, among which are phosphate of lime, potash, soda, common salt, gypsum, &c. The grass cannot create these substances for itself. It can only draw them from the soil. If they exist abundantly in the soil, as in most newly cleared lands, those sweet, nutritious grasses, most valued by the farmer, will grow luxuriantly; but if the soil do not contain them, except in very minute portions, as in old dairy farms, then those nutritious grasses will die out, and meagre, innutritious grasses will take their place. But it so happens that the same substances which are essential to the sweet, nutritious grasses constitute the essentials of milk. Of phosphate of lime, for instance, two ounces are required for the elaboration of each pail of milk in the mysterious organism of the cow; and several pounds are carried off in the bones of every calf sold from the farm. In process of time, this substance, which never exists but in small quantities, is exhausted. When no longer found in the soil, it cannot be in the grasses growing from that soil. But the cow cannot elaborate milk without it. Still there is in the organism of the cow an effort of nature to elaborate milk. The little phosphate contained in her food is all abstracted from her system in the composition of milk. None is left for that steady and constant renovation of her bones which nature requires. Her bones are deprived of what is necessary to keep them in a sound, healthy, constantly renovated state. In other words, her bones are not fed with food convenient for them. Phosphate of lime is the proper food for bones, but this cow's bones have been cheated out of that bone-growing and bone-renovating substance. She has the *bone-sickness.* Never was a disease more appropriately named. It is called *bone-sickness* for two reasons: 1st, because it is really a disease of the bones, these organs having fallen into an abnormal, sickly state; and 2d, because it is manifested by an unnatural and, in some cases, an almost rabid craving for bones, so that the cows afflicted with it, as Mr. Tuttle says, will run for a bone as if a dog were after them. So much for the *cause.*

For the cure, the best prescription is to remove the cows to a good pasture, in which are plenty of clover and other sweet grasses, if it is summer; and to feed them, if it be winter, on good, well cured hay from richly manured land. Such food will supply the necessities of the milk-giving animal, and will be likely to restore health. If a change of pasture could not be had, it would be well to soil the cows on grass cut from well manured mowing. It would also be well to give them bone-dust, ashes and salt. The latter, of course, should always be within the reach of cows. The two former would tend to mitigate, and might cure the disease. If the three were placed separately, the instinct of the animals would be the best possible guide which to take and which to reject; for I suppose that no animal would eat bone-dust, or ashes, or salt even, unless led to it by a real want of its nature.

Now for the prevention. This has been already intimated; for what would cure, would in this case be likely to prevent a recurrence of the disease. I believe cows never have the bone-sickness, if fed on rich, sweet pasturage, or on hay from well manured mow lands. But what shall be done with our old pastures, so poor that ten acres but keep a cow, and that on grasses so innutritious that she needs after all bone-dust, ashes, salt, and gypsum to keep her from sickness? Put these things on the land. A compost of 5 bushels of ashes unleached, 4 of oyster-shell lime, 3 of cheap, agricultural salt, 2 of bone-dust, and 1 of gypsum, to the acre, would prevent the *bone-sickness,* and more than pay the expense, in the increased productiveness of the land.

MADDER.

(RUBIA TINCTURUM.)

It has been ascertained of late that this plant is susceptible of cultivation in this country, though the very large quantity of it annually consumed in our clothing establishments, and dye-houses, are imported. The plant has a perennial root and an annual stalk, and those who have carefully investigated it with reference to its habits, say that it does best in a deep, rich, sand loam, moist, but not wet. It requires three summers to come to perfection; and as the roots strike deep, the ground should be plowed and mellowed two feet deep for its reception. Miller says it should be planted with a dibble (it is propagated by off-sets from the old roots,) in rows from two to three feet apart; while Beechstein says they should be planted only six inches asunder. The practice in this country, we believe, for we are not personally familiar with it, is to plant in rows four to five feet apart, and to cultivate rows of corn or potatoes between them,

at least the first year. The season for planting is the last of May or first of June. The acre produces, as things are favorable or unfavorable, from ten to twenty hundred pounds.

Hitherto, it has been cultivated principally in Holland; the province of Zealand, according to a late traveller, being almost covered with it, and from whence it is exported to every part of England and America, "yielding almost incalculable profit."

Several years since it was stated that the imports of madder for the use of our own manufactures amounted, annually, to more than two millions of dollars! There is no reason, as it appears to us, why our farmers should not succeed as well in the cultivation of this important and valuable product, as the Hollanders, and thus avail themselves of a new resource, and an amount of income which would be of great benefit, not only in its effects upon their own interests, individually, but upon the interests of the country at large.

Successful experiments have already been made in Otsego and Madison counties, New York, and very favorable results are anticipated by those who have commenced the business of growing it, as a field crop, in other parts.

For the New England Farmer.

OBJECTIONS TO FARMING.

MR. EDITOR:—As I like farming best of all occupations to which I have as yet turned my thoughts, the desire to become a farmer is naturally uppermost in my mind; but the pleasures and advantages of learning which the farmer enjoys are so few,—when there is no capital to work on,—that I am deterred from ever trying to become a farmer.

In your valuable paper of June 7th, in the biography of Luther Carlton, were contained those very objections, which I have against the life of a farmer. Although it was written for the express purpose of encouraging, yet it has the tendency of disheartening the young beginner in the all important branch of business, farming, if I may judge from myself. The account was altogether too true to be passed by unheeded. It was the only piece, Mr. Editor, that I have seen in your ever-welcome paper for a great while, which pictured out in true colors the life of a poor farmer. The condition of Luther Carlton, from childhood till death, was the same as that of many farmers by whom we are surrounded.

And now, who, Mr. Editor, having read the life of this worthy man, and being in the same situation in regard to the good things of this world—namely, money,—could ever wish to become a farmer? Who is there to whom the love of this life is so dear that he would be willing to bend his neck to the yoke of ignorance, and submit himself to the servitude of a farmer's life for the sake of living? Who is there, who is willing to work hard from sun to sun, toil with might and main six days out of every seven, following in the steps of his fathers, without the means of trying any new course in the art of husbandry, and without the means of carrying out any new thought of his own which may appear to him to be advantageous? Who is there, who will choose a life in the country, and work and toil day after day for the privilege of breathing the open air and be deprived of the advantages of learning which are opened to professional men; and, to a greater degree to the mechanics who reside in the city than to the farmer? What, Mr. Editor, is a farmer without learning? Even though a man has heaps of money—if he is without the desire of study—is it anything more than downright slavery?

Perhaps, you ask, why has not the farmer the advantages of learning? has he not the privilege of attending lectures on different subjects through the winter? Are there no books and newspapers in the country? Yes, Mr. Editor, there are all these; yet a few farmers only of the "upper ten" can afford to enjoy them? And why? First, because we have not time to spare. Secondly, because our motto is, and has been, and must ever be, if things remain as they are now, "a penny saved is two pence clear." Thirdly, because, having never learned the first principles of science when young, the farmer has no desire to study them when he is old.

These, then, are my objections against farming; first, because I have no money, and no chance of gaining it by farming; secondly, because there are so few opportunities enjoyed by the farmer of improving his mind; and I consider *that* the only thing worth living for; the only lasting work which we can accomplish upon the earth; the only thing which we can do that will be of any advantage to us hereafter. And therefore, that avocation, and that only, which affords the greatest means for the accomplishment of this purpose will be chosen by me; and would to God that it was, as it might be, farming. Yours respectfully,

Bridgewater, June 9. A FARMER'S SON.

REMARKS.—The foregoing is one of a class of letters that we occasionally receive, and to which we have on several occasions more or less fully replied. This one has remained on file some weeks, not because we lacked the disposition to take immediate notice of the communication, but because other pressing duties have fully occupied our time, and, we may here confess,—as the apology has a direct bearing on the subject of the letter before us,—because, after considerable experience in both, we find it much easier to work on our farm, than to write editorials, and that it is with a hearty reluctance that we go from the labors of the fields to those of the editorial office.

As an expression of the feelings of a multitude of the sons of farmers in all parts of the country, we are disposed to regard with much deference these well-stated objections to farming, however inconclusive they may appear to ourselves.

We must confess, at the outset, to no little surprise at the impression which a biography lately published in our paper has made upon the mind of our young friend. The individual who wrote that article wished to avoid that indiscriminate praise and eulogy which are too common in obituary notices, and he might perhaps have thought too little

of the many readers of the *Farmer*, who knew nothing of the man, and too much of those few friends and acquaintances, to most of whom the success and prosperity of Mr. Carlton were much better known than his early struggles with the "poverty," the "ignorance," and the "slavery" of labor which stand out so prominently in the picture as it is looked upon from the stand-point of "A Farmer's Son." For such readers, and for the credit of farming, it might have been well had he spoken more fully, as we are assured he most truthfully might have done, of the long career of prosperity which Mr. Carlton enjoyed after the obstacles that beset his early life were surmounted. But this was what the feelings of the writer of that sketch, and the known wishes of the family of his respected relative, prompted him to avoid. And we can hardly believe that many will agree with our young friend, that this biography is calculated to dishearten the young farmer. Commencing life without any capital at all, with much poorer advantages of education than are now enjoyed in all parts of New England, he became an intelligent, independent citizen, discharging with marked efficiency and faithfulness the various duties which that term implies, as a town officer, a juror, and a representative in the Legislature of his State,—it does appear to us that the history of Mr. Carlton affords a most encouraging example and stimulant to the youth of our country. Especially from the fact that during his last illness, when he looked upon the past with the same calmness that he did upon the future, and had time to review fully the hardships of his life, which have so disheartened our young friend, he deliberately advised an only son to remain a farmer.

But, says our young friend, "he had to work hard." Ah, there it is! "From sun to sun." Now we admit that farmers do and must work hard. It were worse than useless to deny or disguise that fact. Not the farmer merely, but all his family must work; not occasionally only, but as a general rule, year in and year out. Nor may he hope to succeed unless he act upon the principle expressed by the adage, "a penny saved is two pence clear," which seems to be regarded by "A Farmer's Son" as a dire necessity.

Admitting, then, the full force of this objection to farming, what shall we reply? How shall we induce our spirited young friend to "bend his neck" to this "downright slavery?" Shall we assure him that as he perseveres, labor will grow less irksome; as it becomes a habit, it will become a second nature; as his neck gets calloused, the yoke will feel lighter? However much truth there may be in these assurances—and we believe there is very much—we fear they will not satisfy him. We prefer to put him on the defensive, by asking, what avocation will exempt you from the sad necessity of labor? What path to excellence goes round all toil, all hard work, all drudgery? The first milepost on that road is the philosopher's stone, but none have ever reached it yet—none ever will.—Property is the product of labor; and what right have you, my friend, to the one, while you withhold the other? If you produce nothing yourself, nor add anything to the comfort and convenience of those who do produce, what right have you to enjoy the results of their labors? In more direct terms, are you not guilty of a wrong—a crime—in seeking for any means by which to live without work? in even urging hard work as an objection against farming? You would probably shudder at the imputation of sharing the spirit of the gambler, the thief, or the robber; yet what but the simple desire to live without work—a desire too often regarded as perfectly innocent—impels to these crimes?

Perhaps from this point we look upon the dark side of the picture; but in all earnestness we desire to caution the youth of our land against the dangers of indulging the idea of living without work, and of forgetting that "he that gathereth by labor shall increase," while "wealth gotten by vanity shall be diminished."

But probably all this has little application to the case of "A Farmer's Son," as he may be looking to some of the many industrial and useful avocations in which the dignity and importance of labor are as fully recognized as upon the farm. In respect to the comparative inducements of these branches of industry and those of agriculture, we should be glad to extend our remarks, but do not propose doing so at this time, and will now only refer to the many articles which have been published in the *Farmer* on this subject.

We must, however, notice another remark of our young friend. He asks, "Who would desire to be a farmer without capital?" Now, while we admit the great want of capital in farming, we may ask, in reply, in what avocation is not capital needed? As a merchant, as a manufacturer, or as a mechanic, what can he do without capital, except to labor or serve as a clerk, agent or journeyman? How many thousands of factory operatives and other "hands" contribute to the wealth of every Amos Lawrence, we have no means of judging; but we saw it stated not long since, that Mr. Chickering, the celebrated piano-manufacturer of Boston, employed about three hundred men, and had some five hundred thousand dollars invested in his business. A bare printing-press for one of the daily papers of this city is said to have cost twenty thousand dollars. Then, why not work a few years as a journeyman farmer, as well as a journeyman merchant or mechanic? As a general rule, we have no doubt that the journeyman farmer lays up money faster than the clerk or mechanic, although the

nominal wages of the latter may be much the largest. The young man on the farm can easily lay aside one thousand dollars by the time he is twenty-eight or thirty years of age, and then by locating according to his means, this sum, with the prudence and energy by which it was accumulated, will enable him to secure a good New England farm. While the probabilities are that the clerk or mechanic will remain a journeyman all his life.

Upon the last objection urged against farming by our young friend, although a very important one, we must be brief. He says farming affords but few opportunities for the improvement of the mind. Were we to admit that, in the circumstances of the past, and in some respects, of the present, there is too much truth in the allegation, do not the signs of the times authorize us to promise better things for the future? The first essential movement in all great revolutions, has already been accomplished in respect to a reform of agricultural education—*the need of improvement is felt*, deeply felt. Upon this point there is perfect agreement, although as yet there exists a diversity of opinions as to the best means of securing the object. In an excellent article from the *Puritan Recorder*, lately published among the miscellaneous matter on the last page of the weekly *Farmer*, it is said, "that there is no single department of labor on which so much is now written, and so much of science and of experimental philosophy is now employed, as that of agriculture." And, then, the improved implements and the labor-saving machinery which are every year introduced to lighten the toil and to save the time of the farmer. If these considerations do not satisfy "A Farmer's Son" that his present business affords a proper field for the development and exercise of his powers, we can assure him that the longer he mingles in the crowd of a city the stronger will his gratitude grow that he was born upon a farm, and the more reasons will he see for regretting that his children are deprived of the advantages of such a birth and education.

For the New England Farmer.

SALT HAY.

MR. BROWN:—In an editorial last week you made some remarks upon salt marsh and hay. As I think you do not give them their true value, I wish to say a few words in their defence, and hope that some wiser head and nobler pen than mine will come forward and give them their fair worth.

I know nothing of their value in western Massachusetts, but in Essex County I do. Making and applying manures is the grand secret of farming. If Essex County should be deprived of its salt hay, it would sing small in the manure line, for it must be remembered that all the salt hay that is brought on to the farm is so much gain, for there is no manure needed in return. I think you mistake in the two principles which you think universally prevail; they are the exceptions, not the general rule. So far as I am acquainted, the best farmers, and those that have made the most improvement upon their uplands, are those that cut a fair proportion of salt hay for the size of their farm.

There is no need of salt haying's interfering with the other necessary business on the farm; if the manager is a man of good calculations, he may find time to pay proper attention to all his other crops, and some for improving low lands.

I have made no great improvement to boast of, but salt hay has been the first moving spring to enable me to do what I have done. If you will make me a visit, I think I can show you enough to convince you that it is not worse than useless. Also show you two young cows and a bull that I have raised mostly upon it, which I think are no disgrace to my farm.

It is a mistake that cattle must be kept at the starvation point to induce them to eat salt hay, if it is cut in season, and properly cured. It is no proof that cattle are kept upon it because they are poor, for there are poor cattle where there is no salt hay. You must blame the managers, not the hay.

THOMAS HASKELL.

Gloucester, June 27, 1856.

REMARKS.—Well, that is plainly spoken, undoubtedly comes from the heart, and we like the spirit. It does not quite controvert our objections, however, to the attention that is given to the use of salt hay. We did not intend to "blame the hay, but the managers," as our correspondent suggests. Thank you for the invitation, friend H., and shall certainly look at the cows and bull when we find ourselves in your neighborhood.

MIGHTY CEDARS OF CALIFORNIA.

Rev. Dr. Bushnell, of Hartford, writes from California to the New York *Independent* a graphic account of the immense cedars of California, the greatest trees in the world. One of them, which had been felled, he ascertained, by counting the grains of the stump, to be twelve hundred and eighty years old. When Mahomet was at nurse this tree was sprouting. Says the Rev. gentleman:

"It is forest, yet nothing that we mean by forest. There is no under-growth, scarcely anywhere a rock; the surfaces are as beautifully turned as if shaped by a landscape gardener, and dotted all over by myriads of flowers, more delicate, if not more various, than any garden ever grew. Moving along these surfaces, rounding over a hill, or galloping through some silent valley, winding here among the native oaks, casting their round shadows, and here among tall pines and cedars drawing their huge conical shapes on the ground, we seem, in fact, to be riding through some vast park. Indeed, after we had seen the trees and taken their impression, we could think of nothing but to call it the park of the Lord Almighty. The other trees we observed were increasing in size as we neared the place, till finally, descending gently along a western slope among the files of little giants, we came to the gate of the real giants, emerging into the cleared ground of the Big Tree Hotel, between the two sentinels, which are 500 feet high, and stand

only far enough apart for the narrow road to pass between. These were the first of the Washington cedars we had seen; it would really seem that we had never seen a tree before. And yet they were only medium specimens.

Close by the house lay the first cut of the Big Tree *par eminence;* the remaining part, or top, had been cut up and removed. Near this first cut stood the stump, about six feet high, with an arbor mounted on the top, which had been squared down for this purpose, the posts of the arbor standing out in the line of the largest circuit at the ground, and the space between them and the circuit of the top filled in by a floor of short boards. The diameter of the top is by measurement twenty-five feet one way, and twenty-three and one-half the other. The diameter at the ground was thirty-one feet. They are all included in a space of fifty acres, and are only ninety in number. The ground occupied is a rich wet bottom, and the foot of the moist northern slope adjacent, covered also with an undergrowth. And why are they here, just here, and no where else? This, I confess, is to me the greatest, strangest wonder of all, that nowhere in the whole earth is there another known example of these Anakims of the forest; ninety seeds alone have been started, ninety, and no more. Is there, was there no other piece of ground but just this, in the whole world, that could fitly take the seeds of such a growth?—Why have they never spread, why has no one seed of the myriads they sprinkled every year on the earth, ever started in any other locality?

And what a starting it is, when such a seed of life begins to grow. Little did that tiny form of matter, about the size of a parsnip seed, and looking more like it than any other, imagine what it was going to do, what feelings to excite, when it started the first sproutings of the Big Tree! We measured an enormous sugar pine recently felled. Sixty feet from the ground it was six feet in diameter, and it was two hundred and forty feet high. We measured one of the prostrate giants, and two hundred and forty feet from the ground it was six feet in diameter. The top was gone, but it could not have been less than three hundred and fifty feet high. And yet this tree was only eighteen feet in diameter, where the Big Tree was twenty-five. If the Big Tree were hollowed, one might drive the largest load of hay through it without even a brush of contact.

Many of the trees, and all the largest of them that remain, are greatly injured by fire. Their time is therefore shortened, and a long time will be required to bring the smaller ones to their maximum of growth. That a man instigated by the infernal love of money, should have cut down the biggest of them, and skinned the next, one hundred and twenty feet upwards from the ground, (viz.: the mother) that he might show or sell the bark of her body, both sound as a rock at the heart, and good for a thousand years to come—O, it surpasses all contempt! And yet to see this giant mother still growing up as before, and bearing her fresh foliage, ripening her seeds, and refusing to die; hiding still her juices and working her pumps in the deep masses of her barkless body, which the sun of two whole years has not been able to season through, dead as it is, and weather-cracked without—it is a sight so grand as almost to compensate for the loss we suffer by the baseness of the human scamp."

CORN-FIELDS.

When on the breath of autumn breeze,
From pastures dry and brown,
Goes floating like an idle thought,
The fair white thistle-down,
O then what joy to walk at will,
Upon the golden harvest hill!

What joy in dreamy ease to lie
Amid a field new shorn,
And see all round on sun-lit slopes
The piled-up stokes of corn,
And send the Fancy wandering o'er
All pleasant harvest fields of yore!

I feel the day; I see the field,
The quivering of the leaves,
And good old Jacob and his house
Binding the yellow sheaves;
And at this very hour I seem
To be with Joseph in his dream.

I see the fields of Bethlehem,
And reapers many a one—
Bending unto their sickles' stroke,
And Boaz looking on;
And Ruth, the Moabitess fair,
Among the gleaners stooping there.

Again I see a little child,
His mother's sole delight,
God's living gift of good unto
The kind, good Shunamite,
To mortal pangs I see him yield,
And the lad bear him from the field.

The sun-bathed quiet of the hills,
The fields of Galilee,
That eighteen hundred years ago
Were full of corn, I see,
And the dear Saviour take his way
'Mid ripe ears on the Sabbath day.

O golden fields of bending corn,
How beautiful they seem!
The reaper-folk, the piled up sheaves,
To me are like a dream;
The sunshine and the very air
Seem of old time, and take me there!

For the New England Farmer.

EFFECTS OF HOME-MADE GUANO.

Mr. Brown:—Having noticed several articles on the value and use of "Home Guano," or hen manure, in the *N. E. Farmer*, and having an accumulation of the droppings of the hen roost for years on hand, about half of which had been heaped up, wet, and have undergone a state of fementation, the balance being dry, I determined to make an application of it to my corn-field, although not in strict conformity to the course suggested by the correspondents of the *Farmer*. I took something over one-half of a two-acre piece which I had prepared by turning under 40 loads of barn-yard manure, spread on the sod, marked off my land and dropped the guano in rows, a single handful to the hill, from a basket as one would plaster, and covered with a hoe full or two, of soil to the depth of half to three-fourths of an inch deep. On this I planted the corn. The balance of the piece was planted from the same seed the same day, manured with compost. You no doubt have anticipated the result, but for the benefit of those inexperienced in its use, and not appreciating its nutritive or killing qualities, I submit it. While that

planted with compost is up and looks finely, that planted with guano is destroyed "root and branch;" some of it came up, but soon withered, and on examination I found the root eat off or killed, and the kernel turned black. I could see no difference in the effect of the fermented or dry, both retaining the same killing qualities. I have no doubt but a judicious application, with a knowledge of its character would have shown a different result.

Bolton, Vt., June, 1856. L. R. J.

COMPARATIVE VALUE OF DIFFERENT KINDS OF FOOD.

The careful study of the prices of substances used as food, and their relative value, is a matter too much neglected by most farmers. It is a study incumbent on the farmer—doubly so at the present time, in view of the high prices of all kinds of grain and fodder. We commend the careful perusal of the following article upon this subject, copied from the *Maine Farmer*. It will be found specially applicable at the present time, to western farmers. The time has been, since we have been a resident of the West, when it mattered but little what kinds of food cattle were wintered on, or how much they consumed. Corn found a slow market at from 15 to 18 cents per bushel, payable in "cats and dogs"—wheat, 31 cents; hay, $2,50 per ton, &c. But the time has come when the western farmer should acquire the best economy in feeding his stock.

"Will you please insert, if convenient, the comparative value of corn with good hay, for feeding store cattle? There are various opinions in regard to it. Some think ten bushels worth a ton of hay.

"There are no certain data, as yet, by which a very certain comparative value of the different kinds of feed can be given. It is true that some very excellent tables have been given by different chemists, who have labored long and diligently in analyzing the substances named, and ascertaining the ingredients of which they are composed, and their proportions in every hundred pounds.

These are undoubtedly correct, and show the comparative amounts of this or that ingredient; and hence a general estimate may be made of their comparative value as feed. It must be remembered, however, that these estimates are only approximations to the truth, and not real truths. The reason is, because the stomach of different animals are formed differently, on purpose to draw nourishment from its owner from materials different from what another one would. The stomach of an ox and that of a horse are different. The horse or the ox will live very well on hay, but the ox will do better on some kinds of poor hay than the horse. They both fatten on the meal of Indian corn, but neither of them could live on meal alone. Their stomachs are made to be distended with bulky material, and if they do not receive this stimulus of distension, they languish. Hence, when we say that 60 lbs. of Indian corn are as good as 100 lbs. of hay, and will yield them as much nourishment, ome allowance must be made, for it will not do to say that if you supply them with as much nourishment from a given amount of corn as they would derive from a corresponding amount of hay—you need not feed them with hay at all. A long series of well conducted experiments is necessary, in feeding the animals themselves, to establish the true, unmistakable comparative value of different species of food. Something of the kind has been done, but not enough to establish what is desired. As it is, we can only give our correspondent the tables as established by chemists in their analyses—and we will here copy that of Boussingault—by which it is stated that 100 lbs. of hay may be replaced by

Bran	85 lbs.	Peas	27 lbs.
Oats	68 lbs.	Potatoes	280 lbs.
Barley	65 lbs.	Carrots	382 lbs.
Indian Corn	59 lbs.	Wheat Straw	426 lbs.
Rye	77 lbs.	Oat Straw	383 lbs.
Linseed Cake	22 lbs.	Barley Straw	460 lbs.
Beans	23 lbs.	Pea Straw	64 lbs.

The editor of the Genesee *Farmer*, (Dr. Lee,) who is exceedingly well "posted up," as the saying is, in these matters, says there can be no doubt that 100 lbs. of ground corn meal mixed with the required bulk of cut straw, will be of more avail in sustaining animal life, during the winter, than any other food that can be obtained at the same price.

In commenting upon the above table, the same writer observes, that, if this table of equivalents can be relied upon, it appears that 100 lbs. of hay is equal to 426 lbs. of wheat straw, and that 22 lbs. of oil cake is equal to 100 lbs. of hay, 68 lbs. of oats, 85 lbs. of bran, &c. Boussingault found that his 17 horses, averaging 1070 lbs. each in weight, ate and did well on a ration of 33 lbs. of hay per day, working eight hours regularly every day. To obtain the same amount of nutritious food in straw, a horse must eat 165 lbs. of the straw per day—a feat which he is incapable of performing. But if we give him 30 lbs. of straw, (equal to 6 lbs. of hay,) 5 lbs. of oil cake, (equal to 22 lbs. of hay,) and 3 lbs. of corn meal, (equal to 5 lbs. of hay,) he will receive the same amount of nourishment, and in about the same bulk, while the cost of wintering him in this way would be considerably reduced.

By carefully studying, says he, the prices of substances used as food, and their relative value, most farmers may save considerable expense in keeping their animals, not by stinting them, (no farmer can afford that,) but by using food which contains the most nutriment for them at a given cost."

THE PLOUGH, LOOM AND ANVIL.—This long-familiar and standard journal comes to us for July with new attractions. In paper and typographical execution, it is equal to many of our best printed books. But the chief attraction which it has recently gained, is in the acquisition of our late fellow-laborer, Professor JOHN A. NASH, of Amherst. Prof. NASH is one of the best agricultural writers in the country; a gentleman of sound judgment, of critical and keen observation. He writes fluently, but in a plain and comprehensive style. Few persons are so well informed in agricultural chemistry as he, and there are a still less number who can so clearly express their ideas on a subject embracing so many technical terms. His *Progressive Farmer*, which is a scientific treatise on agricultural chemistry, ought to be in the hands of every farmer in the land, and there is not one but might be benefited by its perusal. We congratulate Mr.

PARISH, the former able Editor, not only upon the accession of strength brought to the journal, but upon the agreeable and profitable associations he cannot fail to realize with such a "companion in arms."

The terms for the *Plough, Loom and Anvil* are $3 for a single year, $5 for two copies or $6 for three copies. Office, 7 Beckman Street, N. Y.

HOW WOLVES CAJOLE AND CAPTURE WILD HORSES.

Wherever several of the larger wolves associate together for mischief, there is always a numerous train of smaller ones to follow in the rear, and act as auxiliaries in the work of destruction. Two large wolves are sufficient to destroy the most powerful horse, and seldom more than two ever begin the assault, although there may be a score in the gang. It is no less curious than amusing to witness this ingenious mode of attack. If there is no snow, or but little on the ground, two wolves approach in the most playful and caressing manner, lying, rolling and frisking about, until the too credulous and unsuspecting victim is completely put off his guard oy curiosity and familiarity. During this time the gang, squatting on their hind quarters, look on at a distance. After some time spent in this way, the two assailants separate, when one approaches the horse's head, the other his tail, with a shyness and cunning peculiar to themselves. At this stage of the attack their frolicksome approaches become very interesting—it is in right good earnest; the former is a mere decoy, the latter is the real assailant, and keeps his eyes steadily fixed on the ham-strings or flank of the horse. The critical moment is then watched, and the attack is simultaneous; both wolves spring at their victim, at the same instant—one to the throat, the other to the flank—and if successful, which they generally are, the hind one never lets go his hold till the horse is completely disabled. Instead of springing forward or kicking to disengage himself, the horse turns round and round without attempting a defence. The wolf before then springs behind, to assist the other. The sinews are cut, and in half the time I have been describing it, the horse is on his side; his struggles are fruitless—the victory is won. At this signal the lookers-on close in at a gallop; but the small fry of followers keep at a respectable distance, until their superiors are gorged, and then they take their turn unmolested.

HOW THEY USE GUANO IN PERU.—A gentleman writing from Arequipa, Peru, gives the following account of the manner in which Peruvians employ guano:

"It is applied to two crops only, maize (Indian corn) and potatoes, carefully by the hand. To maize, when the plant is about two months old, and about three-fourths vara high, one-half handful is applied near each root. A larger quantity is said to be prejudicial, by "burning the plant." The guano is then covered with earth, and a small quantity of water (by irrigation) is applied to "fix the guano." If the state of the soil does not absolutely require it, no more water is applied until after six or eight days.

The quantity required for each "topo," of 5000 varas (about 1¼ acre,) is four fanegas, or say 500 pounds. For potatoes the quantity required is the same, and is applied much in the same manner as regards the age of the plant, and a small quantity of water to fix the guano. The stalk of the potato is then about one-fourth vara in height, and the earth heaped up in ridges the same as in Britain. A person inserts a spade in the top of the ridge beside each plant, whilst a woman follows, pouring about half a handful of guano into the hole thus made, and covering it with earth, so that the ridge remains the same as before the application of the guano.

To wheat the application of guano is not approved, principally, we believe, on account of the rankness it produces in the stalk, thereby delaying the ripening of the grain—a point of great importance in lands where they count on obtaining two crops a year.

For the New England Farmer.

GOOD FARMING MAKES ITS MARK.

MR. EDITOR:—I am aware the time has been, when a false idea prevailed in relation to agriculture. It was deemed an employment only proper for the lower classes of society. It would do for the serfs of Europe, the "slaves" of America, or men of little means and ingenuity; but not for men of great minds and ability, liberally stored with knowledge. The time has been when such men could levy no tax on mother earth by actual experiment, without bringing themselves into disrepute. There have been, however, worthy exceptions. Abraham was one, Lot another, Jacob, Moses, Job and David were others, and then there have been others; but the idea, which has to a wide extent prevailed, was, that "farming" did not require great minds, that very little knowledge was ample for such an employment, and that noble minds would not be dabbling in such small matters. But where did this opinion originate? who started and held to it? They were shallow, simpering girls, and proud, foppish dandies, who carried their character on their back. They were either the Puritan stock all run out, or some outlandish breed introduced. Their opinion was as false as the head was empty which formed it. The fact is, there is no employment on earth more noble and elevating, more truly praiseworthy, than that of the husbandman. Our Puritan fathers well understood it, too, and so did their daughters. Their parents did not object to their marrying good, honest, common-sense farmers.

Since the days of the Puritans, the false notion referred to has been running its race. I am glad, however, that the tables are being turned, and in spite of all opposition, that agriculture is beginning to take its proper stand with the other arts and sciences. I am truly rejoiced to find the press speaking forth the words of truth and soberness on this important subject. I believe the *New England Farmer* a great aid to this cause, and were it in every family in the land, they would, I believe, find themselves abundantly enriched by its perusal. Farmers must *think* and *read* as well as other men. They do well to tax their *brains* as well as hands. By *thinking* a little, many a fine touch can be put upon matters and things around the house, or barn, in adorning and decorating—or at least, putting every thing in its place.

As I cast about me, wherever I go, I can but mark the appearance of thrift or waste which stares every traveller in the face, and even a careless observer can tell the cause. Around the one is a good, substantial fence, high enough, and strong enough; the other has a sheep-hole here, and a few old boards half nailed there, which a slight touch of an animal would throw down, and while the owner is asleep, the cattle enter, and destroy much f his hard earnings, in a single night. *Shiftlessness* is the cause.

On the subject of adorning, I would like to write a volume, and hope to find time to think more on that subject, soon, for my very soul is pained within me when I see such gross neglect on the part of many as to the whole business of beautifying the front and rear of their buildings with trees of various kinds. I look upon a tree, as I do upon a *tried* friend. Sincerity and fidelity are seen upon its bark, branches, and leaves. A little care and labor furnishes such friends in abundance; a shade in the heat, a shield in the storm. B. D.

Kennebec, Me.

"WHY THE CAT DOES NOT SWEAT."

An article appeared in the *Country Gentleman* under this head, several months ago, which has been copied into several country papers, and is still going the rounds. The article contained several errors, which, for the sake of the children and youth that may read the piece and obtain false notions, both of the phenomena of the case and the philosophy, should be corrected. The first error is contained in the proposition, that all herbivorous animals sweat, and that all carnivorous animals do not sweat. It may be true that all carnivorous animals never sweat, but it does not follow that all herbivorous animals sweat. The rule is this—all animals that loll, whether carnivorous or herbivorous, never sweat, but throw off their surplus heat from the mouth in the act of lolling. But all animals that never loll, throw off their surplus heat through the skin in the process of sweating. All animals that chew the cud, (except *man*,) loll, and therefore never sweat. The hair of oxen and cows will be found to be very wet sometimes on a warm day, but such moisture does not come through the skin, but condenses from the atmosphere upon the hair. This takes place by reason of their bodies having been cooled by throwing the heat from the mouth. Horses generally sweat freely when at work, and especially in hot weather. I have seen horses, however, that seldom sweat any, even in the hottest weather, but would loll like the ox. Hogs, fowls and *cats* even, will loll freely when worried in a hot day.

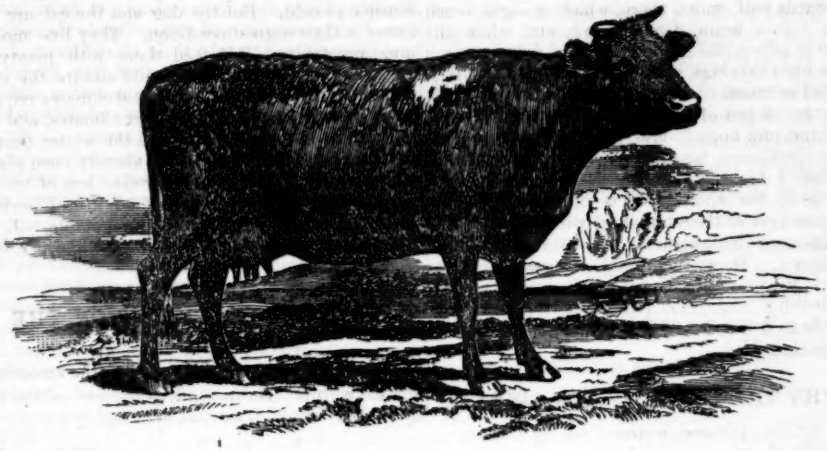
But the explanation is as erroneous as the statement of the facts of the phenomenon. The reason given is, that the food of the herbivorous animals contains a greater amount of fuel, and, therefore, the heat produced must be thrown off through the skin. Now, it is true that the food of the herbivorous animals contains more of the elements of heat than that of carnivorous, and would produce more heat if it were all burned, and burned as rapidly as the food of the carnivorous animal.

But this is not the case; for but a small proportion of the food of the herbivorous animal is burned at all, but passes through the animal unburned, in the form of dung, or accumulated fat, whilst that which is burned, is burned very slowly, so that it is not perceptible as it otherwise would be. Whilst the proper food of the carnivorous animal is all of it burned, and burned rapidly, producing a greater amount of immediate, available heat, than would be produced by vegetable food. The dog and the cat are referred to by the writer as animals very sensible to cold. But the dog and the cat are not living in their normal condition. They live mostly upon vegetables. But feed them with plenty of pure flesh. and no animals would endure the cold better. The inhabitants of all cold climates require more meat than those of warmer climates, and require and consume more, also in the winter than in the summer. The reason has already been given, which is, that, though flesh contains less of the elements of heat than vegetable food, it is all burned, and burned more rapidly than vegetable.—J. L. EDGERTON. *Georgia, Vt., Feb.* 19, 1856.—*Country Gentleman.*

HOW THE FLY WALKS ON THE CEILING.

How the fly manages to walk over the smoothest surface with his feet upward, in defiance of the law of gravity, is a phenomenon that would interest us more than it does, were it not so common. It has been generally supposed that his feet were supplied with valves or suckers, and that he is thus enabled to hold himself upwards by atmospheric pressure. Others have attributed this peculiar power to the secretion of a sticky liquid in the feet, which enables him to sustain himself in this seemingly unnatural position. The microscope has demonstrated that in many insects of the fly kind, the foot is furnished with a pair of membranous expansions, termed *pulvilli*, commonly known as valves, and that these are beset with numerous hairs, each of which has a minute disk at its extremity. There is no doubt that this apparatus is connected with the power these insects possess of walking with the feet upwards, but there is still some uncertainty as to the precise manner in which it ministers to this faculty. We learn, however, from the *Medical and Surgical Journal*, that the recent careful observations of Mr. Hepworth, published in the *Quarterly Journal of Microscopic Science*, has led him to a conclusion which seems in harmony with all the facts in the case, viz., that the minute disks at the end of the hairs upon the pulvilli act as suckers, and that each of them secretes a liquid, which, though not viscid, serves to make its adhesion perfect.

OLD CHURCH MUSIC.—In the time of Edward Fourth, it was the custom to have whole chapters of the Bible set to music and sung in the churches, and an old writer mentions that the whole of the first chapter of Matthew, containing the genealogy, was so arranged. He goes on very quaintly to say that "while the Bass was holding forth the existence of Abraham, the Tenor, in defiance of nature and chronology, was begetting Isaac; the Counter-Tenor begetting Jacob; and the Treble, begetting Joseph and all his brethren."



AN AYRSHIRE COW.

This breed of cattle has become a favorite one with amateurs, and it is probable that by careful feeding and attention, the largest products of the cow have been developed. These are sometimes surprising. In Middlesex county, we believe, premiums have been paid for butter made from an Ayrshire cow where the product amounted to eighteen pounds per week, and the butter of the very best quality. In other counties in this State, and in other States, we have noticed similar returns.

Mr. Aiton, in his "Treatise on the Dairy Breed of Cows," thus describes the Ayrshire cattle :—"The shapes most approved are—head small, but rather long and narrow at the muzzle; the eye small, but smart and lively; the horns small, clear, crooked, and their roots at considerable distance from each other; neck long and slender, tapering toward the head, with no loose skin below; shoulders thin; fore-quarters thin; hind-quarters large; back straight, broad behind, the joints rather loose and open; carcass deep, and pelvis capacious, and wide over the hips, with round, fleshy buttocks; tail long and small; legs small and short, with firm joints; udder capacious, broad and square, stretching forward, and neither fleshy, low-hung, nor loose; the milk veins large and prominent; teats short, all pointing outward, and at considerable distance from each other; skin thin and loose; hair soft and woolly. The head, bones, horns, and all parts of least value, small; and the general figure compact and well proportioned." Mr. Rankin very properly remarks, that, "compared with other improved breeds, the thighs, or what is called the twist of the Ayrshire cow, are thin. She is, characteristically, not a fleshy animal."

The Ayrshire farmers prefer their dairy-bulls, according to the feminine aspect of their heads and necks; and wish them not round behind, but broad at the hook-bones and hips, and full in the flanks. Experience, dearly bought, led to this, for the consequence of the crossing of the small native breeds with the heavy cattle imported from the south, was a bony, ill-shaped animal, not much improved as a milker, and its disposition to fat lamentably decreased; it may, however, demand consideration whether the round and compact form of the West Highlander and the Galloway have not been too much sacrificed, and even the defects of the shorthorn needlessly perpetuated.

Mr. Aiton says :—"The qualities of a cow are of great importance. Tameness and docility of temper greatly enhance the value of a milch cow. Some degree of hardiness, a sound constitution, and a moderate degree of life and spirits, are qualities to be wished for in a dairy cow, and what those of Ayrshire generally possess. The most valuable quality which a dairy cow can possess is, that she yields much milk, and that of an oily, or butyraceous, or caseous nature, and that after she has yielded very large quantities of milk for several years, she shall be as valuable for beef as any other breed of cows known; her fat shall be much more mixed through the whole flesh, and she shall fatten faster than any other." This is high praise,

if it can be truly affirmed of the Ayrshire cattle; we are anxious to know the origin, the history, and the general management of this valuable animal.

The origin of the Ayrshire cow is even at the present day, a matter of dispute; all that is certainly known is, that a century ago, there was no such breed in Cunningham, or Ayrshire, or Scotland. Did the Ayrshire cattle arise entirely from a careful selection of the best of the native breed? If they did, it is a circumstance unparalleled in the history of agriculture. The native breed may be ameliorated by careful selection; its value may be incalculably increased, some good qualities—some of its best qualities—may be for the first time developed; but yet, there will be some resemblance to the original stock, and the more we examine the animal, the more clearly we can trace out the characteristic points of the ancestor, although every one of them improved.

For the New England Farmer.

GEOLOGY.

MR. EDITOR:—It seems to me that all young persons, young farmers especially, should try to obtain some just notion of the leading principles of geology and mineralogy. Though I do not pretend to a very accurate knowledge of either of these sciences, yet I have written two brief articles for insertion in your paper, if you deem them worthy, in order to encourage some attention to these studies. When I meet with individuals, as I frequently do, who cannot tell one kind of earth from another, or one kind of stone from another, except by the quantity, color or size, I am amazed beyond measure. I wonder how it has happened, that they have lived all the days of their lives in the very midst of their Creator's works, without ever having their curiosity sufficiently excited to inquire into some of their peculiar properties, qualities, and uses. If I shall but succeed in drawing attention to these two branches of science, I shall accomplish my object.

Geology, as it treats of the formation and structure of the earth, of its rocks, strata, soil, minerals, organic remains, &c., is one of the most interesting and useful branches of knowledge. The object of this science is to investigate and describe the internal structure of the earth, the arrangement of the materials of which it is composed, the circumstances peculiar to its original formation, the different states under which it has existed, and the different changes which it appears to have undergone.

Now, it is perfectly evident, from various considerations, that our knowledge of this important subject must be very shallow and imperfect. For instance, we cannot examine into the interior of the earth to any considerable distance. We can do little more than examine what is denominated the outward crust of the earth, while all the interior parts remain unexplored. So that a question naturally arises, how a competent or accurate knowledge of geology is to be acquired? Can it be learned at school, or from books alone? Where are the schools in which a correct and thorough knowledge of this subject can be acquired without personal examination? Where are the text-books, so adapted to the capacities of common minds, as to supercede the necessity of personal examination, observation and experience? Nay, where are the geologists, or the mineralogists, who have derived all their information from schools, or from books alone? If geologists and mineralogists themselves have been obliged to take their chief lessons from the works of Nature, rather than from books, so must we and all others. Theory is useless without practice, and practice cannot be advantageously pursued without some kind of theory. In fact, a judicious text book may be of essential service to beginners in pursuing this study, as it will assist them in arranging and classifying the different materials.

The surface of the earth is found to be composed of different strata or beds placed one above the other. These strata or layers are very much mixed, and their direction, matter, thickness and relative condition vary considerably in different places.—These strata are divided into seven classes, as follows:—black earth, clay, sandy earth, marl, bog, chalk, and stony earth. The surface of the globe, by its inequalities, is divided into highland, lowland and the bottom of the sea. At first sight, the solid mass of the earth appears to be a confused assemblage of rocky masses, piled on each other without regularity or order; but, on a nearer view, a variety of beautifying arrangements has been traced by the industry of geologists, and the light of modern discoveries.

The materials of which the solid crust of the earth is composed, have been arranged into the four following classes:—1. *Primitive rocks*, which contain no animal or vegetable remains; the period of whose formation is considered as antecedent to that of the creation of organic beings. These are granite, gneiss, mica slate, clay slate, which occur abundantly in all regions of the globe, with quartz rock, serpentine, granular limestone, &c., which occur more sparingly. 2. *Secondary rocks*, containing organic remains, and are therefore considered as having been formed posterior to the existence of organized beings. These are greywacke, sandstone, limestone, and gypsum of various kinds, slate clay, with certain species of trap; and they are found lying above the primary or primitive rocks. 3. *Alluvial rocks* or *formations*, consisting of beds of gravel, sand, earth, and moss, and lying above the secondary rocks. This class comprehends those rocky substances formed from previously existing rocks, of which the materials have been broken down by the agency of water and air; they are, therefore, generally loose in their texture, and are never covered with any real solid and rocky secondary strata. 4. *Volcanic rocks*, under which class are comprehended all those rocks, beds of lava, scoriæ, and other matter, thrown out at certain points of the earth's surface by the action of subterraneous fires.

Many have been deterred from the study of geology by the supposed difficulties which attend it. But no greater difficulties have been found in the pursuit of this study, than in any other useful branch of science. Until the sciences of chemistry and mineralogy had made considerable advances towards that state of perfection in which we now find them, geology was scarcely understood at all; but, with the aid of these sister sciences, geology

has become intelligible to all who have attended to the subject. But without a personal knowledge of these kindred sciences, a competent knowledge of geology may be easily obtained. By examination and careful observation, the different kinds of soil may be easily distinguished and well understood by farmers, at least for all practical purposes, without their being able to make an accurate and critical analysis of all their different constituent properties. And it is this practical knowledge which is most needed by farmers. They have not time, the means, or the ability, to analyze, with any degree of exactness, all the different kinds of soil which they cultivate. But they have the time, the means and the ability, to examine them carefully, to note their differences, and to distinguish accurately many of their peculiar properties.

But it may be asked, what is the use of this study? What is all this knowledge good for? What practical purpose can it subserve? It is a sufficient answer to these inquiries to say, that it has its uses. Besides those of an outward and practical character, relating to the business of this world, it has a mighty influence on the intellect, the heart and the life. Whatever study tends to raise our minds to the Supreme Ruler of the universe—to expand our views of his infinite knowledge and wisdom—to excite our gratitude and admiration—to guard us against erroneous conceptions of his character and providence—and to furnish us with the means of intellectual and moral improvement, must always be useful, and answer a valuable purpose. JOHN GOLDSBURY.

WEALTH OF THE BRITISH ARISTOCRACY.

In evidence of the wealth amassed by ancient families, the traveller is shown the palaces in Piccadilly, Burlington House, Devonshire House, Lansdowne House in Berkshire Square, and, lower down in the city, a few noble houses which still withstand in all their amplitude the enroachment of streets. The Duke of Bedford includes or included a mile square in the heart of London, where the British Museum, once Montague House, now stands, and the land occupied by Woburn Square, Bedford Square, Russell Square. The Marquis of Westminster built within a few years the series of squares called Belgravia. Stafford House is the noblest palace in London. Northumberland House holds its place by Charing Cross. Chesterfield House remains in Audley Street. Sion House and Holland House are in the suburbs. But most of the historical houses are masked or lost in the modern uses to which trade or charity has converted them. A multitude of town palaces contain inestimable galleries of art.

In the country, the size of private estates is more impressive. From Barnard Castle, I rode on to the highway twenty-three miles from High Force, a fall of the Tees, towards Darlington, past Raby Castle, through the estate of the Duke of Cleveland. The Marquis of Breadalbane rides out of his house a hundred miles in a straight line to the sea, on his own property. The Duke of Sutherland owns the county of Sutherland, stretching across Scotland from sea to sea. The Duke of Devonshire, besides his other estates, owns 96,000 acres in the county of Derby. The Duke of Richmond has 40,000 acres at Goodwood, and 300,000 at Gordon Castle. The Duke of Norfolk's park in Sussex, is fifteen miles in circuit. An agriculturist bought lately the island of Lewes, in Hebrides, containing 500,000 acres. The possessions of the Earl of Lonsdale gave him eight seats in Parliament. This is the Heptarchy again; and before the Reform of 1832, one hundred and fifty-four persons sent three hundred and seven members to Parliament. The borough-mongers governed England.

These large domains are growing larger. The great estates are absorbing the small freeholds. In 1786, the soil of England was owned by 200,000 corporations and proprietors; and, in 1822, by 32,000. These broad estates find room on this narrow island. All over England, scattered at short intervals among ship-yards, mills, mines and forges, are the paradises of the noble, where the live-long repose and refinement are heightened by the contrast with the roar of industry and necessity, out of which you have stepped aside.—*R. W. Emerson's English Travels.*

For the New England Farmer.

A WORD OF CAUTION.

For ten or twelve years I have been in the habit —till last year—of purchasing trees, shrubs, &c., at Hyde's, or Winship's, near Boston; and have seldom, if ever, had reason to regret.

But last year, a gentlemanly-looking man calling himself Stevens, came along, and said he was making arrangements to supply my neighbors and the public generally with trees, &c., from Flushing, L. I. On inquiry if the establishment at F. with which he was connected, was the one that, a few years ago, had a branch establishment at Brighton, he said yes. On the strength of that assurance, and that of one of my neighbors who knew him, that he had a good reputation, I made a few purchases, and among the rest engaged some buckthorn for a hedge at an extra price, because, as he assured me, they were of extra size. The trees were to be delivered at the Auburndale depot in October.

On meeting with Mr. Breck, of Boston, in the cars, some little time afterwards, and telling him what I had done, he smiled, and asked me why I did not purchase of him, or of somebody with whom I was acquainted, rather than of strangers, and said, that though he knew nothing of Mr. S. in particular, yet one was very apt, in these circumstances, to get *bitten*.

Subsequent to the first engagement I changed my order somewhat, requesting a few new trees, and a reduction of the buckthorn from one thousand to eight hundred and fifty.

When the trees arrived in October at Auburndale, our bills came with them, in the name of Messrs. Parsons & Co., of Flushing—Mr. Stevens being their agent—accompanied by a request that we would pay them at the depot. I paid mine at once, but finding from the bill that while the *additions* I requested had been made, the *subtractions* had been forgotten, I asked for a reduction of the price; accordingly, a few shillings were allowed, and Mr. S. promised to *come around* and see me further by-and-bye. I saw him about half an hour afterwards, but as I expected he would call at my house, the final adjustment was not made.

When I came to unbind my parcels in order to set them, I found to my great mortification, that besides other mistakes, some small buckthorn, worth here and at Flushing only $10 a thousand,

had been sent at $15 a thousand, instead of a larger kind for which I had already paid him at $20 a thousand. But Mr. S. was gone, and I saw no remedy but to set them, although the largest—as large as his finger, Mr. S. said—would have been several years in advance of them.

I wrote to Mr. S. at Flushing; and among the rest—still supposing it was all one firm—to Messrs. Parsons & Co. The latter said they had nothing to do with Mr. S., except to sell him largely; though they incidentally told me they never kept any such large buckthorn as Mr. S. had mentioned, and also, that they had forbidden him to use their name in the manner he did. Of Mr. S., I never obtained anything but promises, and of late a few reproaches and insults.

Such information as this statement involves, would have done me good a year ago; and this suggests the notion for suggesting a caution to others. For myself I have learned to suffer and to endure what cannot be cured; but I would save others, if I could, from suffering. Nearly every neighbor who has dealt with Mr. S. complains about him; but I have seen no one who expects he will show himself again in this village. W. A. ALCOTT.

Auburndale, Mass., Aug. 9, 1856.

SONG OF THE PEASANT WIFE.

BY THE HON. MRS. NORTON.

Come, Patrick, clear up the storms on your brow;
You were kind to me once—will you frown on me now—
Shall the storm settle here when from heaven it departs,
And the cold from without find its way to our hearts?
No, Patrick, no! sure the wintriest weather
Is easily borne when we bear it together.

Though the rain's dropping through, from the roof to the floor,
And the wind whistles free where there once was a door,
Can the rain, or the snow, or the storm, wash away
All the warm vows we made in our love's early day?
No, Patrick, no! sure the dark stormy weather
Is easily borne if we bear it together.

When you stole out to woo me when labor was done,
And the day that was closing to us seemed begun,
Did we care if the sunset was bright on the flowers,
Or if we crept out amid darkness and showers?
No, Patrick, no! we talked, while we braved the wild weather,
Of all we could bear, if we bore it together.

Soon, soon, will these dark dreary days be gone by,
And our hearts be lit up with a beam from the sky!
O, let not our spirits, embittered with pain,
Be dead to the sunshine that come to us then!
Heart in heart, hand in hand, let us welcome the weather,
And sunshine or storm, we will bear it together.

GRAIN PROSPECTS.—Along the Sacramento Valley, even high up, we have very favorable reports of the crops—better, much better, than was anticipated, appear the crops, to all who write us. From accounts around Shaster, very favorable news comes to us of the prospect. The *Sonora Herald* gives a glowing account of the prospects for grain. Our correspondents from the lower coast, from Los Angelos and vicinity, give us very flattering accounts, the crops never looked better, and they will be heavier than last year. Similar news comes from all quarters.

A correspondent from high up the American, writes thus:—"The grain is coming down in every direction. Cradlers and reapers are at work—weather fine, not so hot as last week; two days the thermometer stood 104°, between two and four o'clock, in the shade; and 160° in the sun. Yield of grain will be very good—hay crop short. Gardens doing well; country quiet, and people universally supporting the action of the Vigilance Committee of San Francisco."—*California Farmer.*

For the New England Farmer.

BOG MEADOWS.

BY HENRY F. FRENCH.

Manchester, N. H., July 24, 1856.

MR. FRENCH:—*Dear Sir,*—Having heard that you have had some experience in reclaiming meadow or bog from its natural state, and fitting it for the production of English grass, I write a few lines to obtain information. My father has, in Auburn, a meadow which can be easily drained, and as I have considerable faith that such pieces of lands may be made valuable if properly—that is scientifically—managed, I am anxious that he should take it in hand. The mud is from twelve to thirty inches deep. Now, after draining, how shall it be treated? Would it be beneficial to draw on and mix with it high land of a sandy or gravelly character? What is the greatest distance that ditches should be apart, and drain it effectually? Is a much greater depth of mud than can be cultivated necessary? If you think the breaking in of such a piece of land will pay, and will answer my questions, giving such suggestions as your experience may dictate, or refer me to any account that you may have published of your work, you will confer a favor.

Respectfully yours, BENJ. CHASE, JR.

H. F. French, Esq., Exeter, N. H.

I thought, on reading the foregoing letter from Mr. Chase, that I could readily refer him to divers articles of my own, on the subject of reclaiming Bog Meadows, but have not been able to find even one. In volume sixth of the *N. E. Farmer*, page 77, is an accurate account of the expenditures and receipts on such an experiment, which shows a pretty satisfactory result, and in vol. 3, page 365, is an article on under-draining, which gives my notions on that subject.

I have reclaimed several meadows, and have never yet attacked one that was not worth the experiment. I have *heard* of swamps that would not produce good crops, after being well drained, but I never saw, and never expect to see one in New Hampshire. Everybody knows, or may know, on slight reflection, that the richest part of the soil on the hills is constantly working into the low places. This process has gone on for thousands of years, and I know of no compensating process, which returns again this rich deposit to the hills.

These low places, these swamps, are then the very store-houses of Nature, for her treasures of fertility. So theory teaches, and experience verifies the theory. By the same law of gravitation, the water as well as the soil, is left in those valleys, and so we usually find them too wet for our cultivated

crops. Two things then are to be done, before our upland crops of grass, or grain or roots, can thrive upon them. The first is

DRAINING.

Examine your ground carefully, at the outset, and be sure that you know whence the water comes that makes the land too wet. Does it rain down upon the hills, and run into the swamp, and so flood it for want of an outlet? or does some stream back up upon it from below, raised by a dam, which some factory or grist mill has a right to keep up? or does it flow into the land from springs which burst up around the edges, or perhaps in the midst of it, at the bottom? If the water runs in on the surface, the obvious mode of drying the swamp is to make open ditches that shall cut it off before it reaches the low land, or if this cannot be done, to collect it at the outside, in open ditches, and conduct it off through the lot, as speedily as possible. If you have back-water from a dam to contend with, perhaps your best course is to sell out and move off, for in many local investigations which I have witnessed, I have never been able to see any limit to the effect of back-water.

It not only rises to the height of the dam, but is drawn by capillary attraction, as well as piled up by the retardation of the stream, so that nothing but actual experiment can determine where the effect of the dam ceases. Besides that, the effect of back-water, which of course produces stagnant water in the ground, is far worse than that of running water. In nine cases out of ten, however, meadows in this part of the country are rendered too wet by spring water, which is rain water falling on higher land and passing down into the earth till it finds a water-bearing stratum, frequently clay or rock, but sometimes of compact gravel, upon which it runs until it comes out at the surface, or oozes through the soil, rendering it cold and barren. I have at this time a drain open on land which has been mowed eight years, and which I have plowed since haying, to be laid down with grass seed and turnips, which gives a good illustration of the operation of these cold springs. I noticed a wet place after plowing, and had a hole dug with a spade to ascertain the cause. This is a spot on a hill-side, perhaps fifteen feet above the level of the stream which runs along twenty rods below. First came about a foot of dark soil, then two or three inches of white compact sand, then about six inches of red gravel, and under this down to the centre, for aught I know, solid clay. The water filled the hole in an hour or two, to within a foot of the surface of the ground, and this in a dry time. Water cannot pass through clay, but runs on the top of it, in the ground, just as on the surface, only slower, and breaking out thus on the hill-sides, and very often at the edge of a swamp, drowns all vegetation, without showing itself at all on the top of the soil. Usually water flows into a swamp only from one side. The substratum of clay, or other impervious substance, frequently has a dip or inclination much more regular than the visible surface, and carries the water in one direction, as for instance on my farm, from north to south. To intercept and cut off this water, cut a ditch *across* the course of it, deep enough to cut *into* the stratum on which the water runs, a few inches, otherwise the water will run under the bottom of the ditch, and come out as before.

For want of stones, I have made use of *brush* for underdrains, covering it with turf. These answer a good purpose for eight or ten years. I am now using strips of pine boards, which I happen to have on hand, sawed six inches wide. Two of these I nail together, and lay the edges upon old boards in the bottom of the drain, forming a triangular opening. On this, I place swamp hay, bushes or tan, and cover up. In wet land I find bushes that were laid eight years ago, quite sound, so that I think pine boards will last many years. This seems a shiftless way of doing the business, but my farm affords no stones, and we have not arrived at the dignity of drain tiles yet, and on the whole we may say of it, as a woman said of her husband who was not a pattern of good morals, "He is no great of a husband, but he is *a dreadful sight better than none.*"

If open drains are used, cut the boards at an angle of forty-five degrees, so that they will not fall in. If underdrains are used, cut them nearly perpendicular, and as narrow as is convenient.

KILLING OUT THE WILD GRASS.

The cheapest, quickest and best method of killing out the bad grasses, is to *plow* the land. If the mud is very deep, this perhaps cannot be done, but if there is not more than a foot or eighteen inches of mud, land ought to be drained enough, so that the plow can be used. Hauling sand or gravel upon a swamp to form a soil, on top of the wild grass, is an endless task. It requires about one hundred ox cart loads of earth to cover an acre one inch deep, and it requires several inches to kill swamp grass. After the land is plowed, almost any sand, gravel or soil, is beneficial to a bog meadow, applied to the surface and harrowed in with the grass seed. I should advise to apply manure of some kind.

A compost of guano, at the rate of two hundred pounds to the acre, I think is well adapted to bog meadows, which contain the elements of fertility in themselves, though frequently combined with acids which render them unproductive at their first exposure to the air. The action of frost, after a swamp is drained, and exposed to the atmosphere by planting and hoeing for a season, usually is found to add to their fertility.

No rule can be given as to the distance at which

drains should be laid from each other. Frequently a single drain across one or two sides, will cut off all the water from several acres, but if springs burst up at the bottom, drains must be run from them so as to carry off the water. A foot or two of black mud, is as good as a greater depth, so far as I have ascertained, and usually is much more easily cultivated, because cattle may work upon it, however wet it may be, if there is not depth enough of mud to get them mired in.

On the whole, if I were working for a farm in New England, I should regard a wild swamp of twenty or thirty acres as coming in the way of recommendations, only a little lower than the convenience of common schools and gospel privileges. It is up-hill work farming hereabouts, on a farm entirely upland, and I have found no farming operation more satisfactory, than converting a dismal swamp into a beautiful and productive grass field.

For the New England Farmer.

NOTHING LIKE THE FARM.

MR. EDITOR:—It would be a very interesting inquiry, to ascertain the origin why farming and farm labor, either in the house, barn, or out-doors, is by many considered a vulgar employment. There is a better "taste" in these respects, now-a-days, than there was a few years ago, and public opinion is getting right in this matter very fast. The first account we have of man is as a farmer, or tiller of the ground. At the commencement of his creation, God placed the stamp of his approbation upon man as a farmer. And thus we find it all through the Bible. The great majority of God's favored people, we have reason to believe, were farmers; many of them of great intelligence, wealth and influence. There are few men of the present day, if any, who can compare with good old Job, in this respect, and from what is handed down to us, from history and antiquarian research, the men in some respects equal, if not indeed in advance of, our farmers of the present time, in the management of their flocks and herds, as well as "the fruits of the earth." Then, so far as the respectability of farming is concerned, and its superiority over all other callings, it has the Divine approbation in making the first man, "created a little lower than the angels," a farmer, and as such, "seed time and harvest" shall be continued to him until the closing up of all things, and there will be no further use for the ox, nor the plow, and the earth shall be no more.

To me, I can conceive of no employment so well calculated to ennoble the soul, expand the mind, soften and humanize the feelings, and cause mankind to prove themselves "created a little lower than the angels," than the occupation of the farmer. He can work his broad acres in all the dignity and independence of his manhood, and "look from nature up to nature's God," as little dependent as any one on God's earth for all the necessaries of his dependent life. All other employments, but for his, would prove futile and abortive; every other calling has his for its basis, and without it, they were useless. I would that our complaining farmers, our sighing maidens, and our restless farmers' sons, could but realize their high vocation. If they would but comprehend it, they are, indeed, the "salt of the earth," but O, how many of them have lost their savor. If contentment is ever to be found, and fully realized in this world, it will, in my judgment, be found with the tiller of the soil. There are few men capable of understanding right from wrong, but long to be the owner of land. No other professions carry with them such a satisfaction of security and pleasure, as the ownership of land. Ask the careworn and toiling merchant, why he thus toils almost unceasingly, day and night, scarcely known in his home or family, except upon the Sabbath, and then, perhaps, his thoughts busy with the past or future. He will tell you, it is that he may acquire a competency, with which he hopes some day to purchase a farm, and upon which he can retire from the care, anxiety, and bustle of business, and spend his declining years, happy with his family, and what God has given him.

Young men and maidens, take my advice, and stay at home with the old folks. Assist them in carrying on the old farm operations. Remember the old adage, "that all is not gold that glitters;" that no concerns of life but what has its cares, and if you would be happy, virtuous, healthy, with a sound mind in a sound body, if you would enjoy all the pure pleasures of this life, free from its perplexities, that it is possible in this world reasonably to expect—stay at home; stick by the farm. Make it everything it is capable of, and yourself equal to its privileges, and my word for it, your life will be a useful and happy one, your death peaceful, and you will go to your reward.

August, 1856. T. Q. NORTON.

ENGLISH CHARACTERISTICS.

These Saxons are the hands of mankind. They have the taste for toil, a distaste for pleasure or repose, and the telescopic appreciation of distant gain. They are the wealth-makers—and by dint of mental faculty, which has its own conditions. The Saxon works after liking, or, only for himself; and to set him at work, and to begin to draw his monstrous values out of barren Britain, all dishonor, fret, and barrier must be removed, and then his energies begin to play.

The Scandinavian fancied himself surrounded by the Trolls—a kind of goblin men, with vast power of work and skilful production—divine stevedors, carpenters, reapers, smiths, and masons, swift to reward every kindness done them, with gifts of gold and silver. In all English history, this dream comes to pass. Certain Trolls or working brains, under the names of Alfred, Bede, Caxton, Bracton, Camden, Drake, Selden, Dugdale, Newton, Gibbon, Brindley, Watt, Wedgewood, dwell in the troll-mounts of Britain, and turn the sweat of their face to power and renown. * * *

When Thor and his companions arrive at Utgard, he is told that "nobody is permitted to remain here, unless he understand some art, and excel in it all other men." The same question is still put to the posterity of Thor. A nation of laborers, every man is trained to some one art or detail, and aims at perfection in that; not content unless he has something in which he thinks he surpasses all other men. He would rather not do anything at all, than not do it well. I suppose no people have

such thoroughness;—from the highest to the lowest, every man meaning to be master of his art.

* * * * *

They have approved their Saxon blood, by their sea-going qualities; their descent from Odin's smiths, by their hereditary skill in working in iron; their British birth, by husbandry and immense wheat harvests; and justified their occupancy of the centre of habitable land, by their supreme ability and cosmopolitan spirit. They have tilled, builded, forged, spun, and woven. They have made the island a thoroughfare; and London a shop, a law-court, a record-office, and scientific bereau, inviting to strangers, a sanctuary to refugees of every political and religious opinion; and such a city, that almost every active man, in any nation, finds himself, at one time or other, forced to visit it.

I find the Englishman to be him of all men who stands firmest in his shoes. They have in themselves what they value in their horses, mettle and bottom. On the day of my arrival in Liverpool, a gentleman in describing to me the Lord Lieutenant of Ireland, happened to say, "Lord Clarendon has pluck like a cock, and will fight till he dies;" and, what I heard first, I heard last, and the one thing the English value is pluck. The cabmen have it; the merchants have it; the bishops have it; the women have it; the journals have it; the *Times* newspaper, they say, is the pluckiest thing in England, and Sydney Smith had made it a proverb, that little Lord John Russell, the minister, would take the command of the Channel fleet to-morrow.

They require you to dare to be of your own opinion, and they hate the practical cowards who cannot in affairs answer directly yes or no. They dare to displease, nay, they will let you break all the commandments, if you do it natively, and with spirit. You must be somebody; then you may do this or that, as you will.—*R. W. Emerson's English Traits.*

For the New England Farmer.

DISEASES OF THE PLUM.

I have, Mr. Editor, for several years been among the croakers in regard to plums. I have been apprehensive that this, one of the finest and most delicious of all the fruits of the earth, was destined to become extinct under the combined attacks of the black wart and curculio. But I begin to hope for better things, and I hasten to give my brief experience of a few months past, in the hope that it may accomplish something towards arresting the decadence of the plum.

I have a few young and thrifty plum trees in my garden, of choice varieties, some of which have just begun to bear. For two years past, I have been in the habit of cutting away with a knife the fungus called the black wart, as fast as it made its appearance, and sometimes at the expense of cruel amputations of quite large limbs. I almost destroyed one or two of my finest trees in that way. Late last spring, however, one of my neighbors told me that he had cured his plum trees of the wart by sewing up a small quantity of common salt, (say half a pint) loosely in a cotton bag, and placing one in the lower crotch of each tree. An experiment so easy and simple, you may rest assured, I was not long in trying; and I am happy to say, with great apparent success. Some very trifling excrescences have since made their appearance, but nothing to interrupt or injure the growth of the trees, which now show extraordinary thrift. Had I begun the experiment earlier in the spring, I am quite confident that the warts would have entirely ceased. As it is, I have cut away perhaps half a dozen very small ones, and rubbed the wounded place with salt, and I feel that I have got the mastery of the disease.

I believe fruit growers are not agreed as to the cause of the black wart in the plum. There is certainly a minute insect in the case; but whether it is the cause, or only the result of the disease, I am unable to say with certainty. My impression is, however, that the insect poisons the tree, interrupts the flow of the sap, and thus creates a fungus, which becomes black by exposure to the sun and air. A similar excrescence, but of a reddish brown color, sometimes appears upon the quince bush, and I have seen the fruit of the quince dwarfed into a kind of hard substance, which, when cut with a knife, resembles the wart on the plum. If the disease be occasioned by an insect, I can readily conceive that the salt in the bag, dissolved somewhat by each successive shower, and thereby covering the bark, might be offensive to the insect, and arrest its progress up the tree.

As to the curculio, which attacks the plum in preference to all other fruit, in consequence of the smoothness of its skin, I think it can be kept off in a great degree by the application of tar around the tree, the same as the canker worm is kept off. The curculio is a kind of beetle with wings, but uses those wings very reluctantly in ascending into the tree. It greatly prefers to make its way up the trunk by crawling, and in all such cases, the tar would prove a pretty sure remedy. Mr. Kenrick, in his "American Orchardist," suggests that the curculio dislikes the smell of tar, and that coal tar, especially, placed in the tree, might keep off the insect. In my own case, I placed some tarred paper around my plum trees, and applied fresh tar, mixed with oil about twice a week, to keep off the canker worms which I shook from the trees. I continued the application a few days after the canker worms had disappeared; and all I can say is, that among the few plums on my trees, there is no appearance of the bite of the curculio. A neighbor of mine threw lime freely upon his plum trees; but, although it killed many of the leaves, it did not prevent the curculio from biting a large portion of the plums. I feel quite confident that the tar, if applied from the time the plums have attained the size of a pea until they are half grown, will prove a more effectual remedy than any yet known to fruit growers. E. C. P.

Somerville, 1856.

INSTINCT OF HORSES.—It is asserted as a fact, says the Cincinnati *Times*, that some of the horses in the service of the Fire Department become entirely restless, and seem anxious to "be off" the moment the fire-bell commences ringing — and though gentle at other times, are no sooner in the traces of an engine, than they dart off at the top of their speed. They seem to partake of all the excitement of the firemen on such occasions. An incident, resulting rather seriously to Mr. John Wilson, a member of fire company No. 10, exhibiting this instinct, occurred yesterday afternoon. Mr.

Wilson had one of the horses of the company hitched in a cart, and was driving leisurely along the street, when the fire bells commenced ringing. The horse immediately became excited, and whirling, started for the engine house at full speed. Mr. Wilson found it almost impossible to manage him. The horse ran on until he came to the engine, when in turning the corner, he upset the cart. Mr. Wilson was thrown out, and the wheel of the cart passed over him, crushing his ribs.

A DAY IN OLD ESSEX.

After a day and night of sweet repose at the summer residence of the proprietor of the *Farmer*, at Lynn Beach, we started with new energies for a stroll through the ancient town of Danvers. The heat, during the last days of July and the first days in August, had been intense, and man and the vegetable kingdom drooped under it. There had been, however, no pinching drought; the grass and foliage were clean, and the corn still spread its broad leaves to the sun and the kissing breezes as they passed.

Essex county is nearly a continuous village, or cluster of cities and towns, in whatever direction it is traversed, and is, probably, more densely populated than any similar extent of territory in the union. It has great wealth, and its commerce and fisheries are unrivalled by any other section of country, while it is equally distinguished for its varied and excellent manufacture of many of the important articles of trade. But, notwithstanding all the temptations to go down to the sea in ships, and to invest capital in commercial, manufacturing and mechanical pursuits, the habits of industry which characterize the people, together with their good taste and good sense, have prompted them to a most beautiful, as well as profitable cultivation of the soil. And though it be stubborn and hard, here presenting abrupt hills, and there sinking into repulsive swamps, yet the indomitable energy of these pilgrim descendants, coupled with their perceptions of the beautiful, has made every part of the county to blossom with attractions. The swamp is reclaimed, and fertile with sweet grasses, elegant villas look down from the gentle hills, while in quiet seclusion stands the substantial farm house and its appurtances, the rational home of intelligent and patriotic men and women. The ledges that once glittered in the sun, are now in the loving embraces of the bignonia, the clematis, or honeysuckle, refreshing the eye of the traveller, as he passes over the unrivalled blue gravel highways of the county. All around him are representatives of a high degree of civilization, and of the elegancies as well as comforts of life. The church, the school-house, the town-hall, the forge, bench, tan-pit, the garden, plethoric with flowers and new vegetables, and the fields, though narrow they may be, stooping with their burdens! These are the true battlements of a State, better than cannon, or moated grounds, or edicts, or fiery banners. The lap of industry here is full; and though the sea reaches up its arms and is ever taking away, like the goddess of the harvest, the energy and will of the people again fills the bin, the bale, box, or barrel, and the world is still supplied.

The Essexonians are patterns of industry, thrift and patriotism. They were patriotic in the revolution—they would be again if they were needed. When the foot of the enemy was on the soil of Lexington and Concord,—not on the necks of the people,—Danvers men bled freely, but their breath ceased forever. Essex county was settled early. Salem as early as 1626; Newbury in 1633, and Ipswich in 1634, had an organized church. It is full of historical land-marks, incidents, and associations, and to the historian, traveller, or even the lover of rural beauty, presents numerous attractions scarcely to be found in any other portion of our country. It is a conglomerate of the commercial, the manufacturing, and mechanical, and charms of country life. The deep bass of the ever restless sea lulls you to repose at night, and the sharp clang of the sounding anvil wakens from delicious dreams in the morning, or lowing cows, or bleating lambs, or the busy hum of the manufacturers' great wheel, greet the ear at every turn. The people of Essex county will never die of a surfeit,—they cannot spare time for that. And yet, they can give thousands to perpetuate free institutions, to erect academies, or top the hill with a church, or a school-house. They visit foreign climes, and return laden with valuable experiences of men and things, under widely different circumstances, or send out their sons to arrange or direct the most important interests in other nations. The Honorable GEORGE PEABODY, a banker of London, and of world-wide reputation, is now about revisiting his native town of Danvers.

But we must rein up our Pegasus, a little, or he will canter with us so pleasantly among these Essex people that we shall never get away.

Everybody knows S. P. FOWLER, Esq., of Danversport, in Essex county; at least, everybody who has read the delightful descriptions of *The Birds of New England*, in these columns,—and they make a good part of the world. Mr. Fowler is a true son of Massachusetts. He loves her history—and few understand it better—her soil, her trees, plants, animals and insects, and everything in her borders that is good, with the ardor of youth or a first love. We found him in the counting-room of his tannery, but clad in the suitable habiliments of his vocation, taking a part in, as well as directing, the manipulations of the craft. But his true character and tastes were not to be found in the pits over which we were led, for in a moment we emerged through a narrow door-way into fairy-land,—a land of fruits

and flowers, of rare shrubs and trees. Here stood the beautiful magnolia (not the lofty grandiflora) and there the noble tulip tree, liriodendron, some 40 feet in height, and other half-hardy and foreign plants interspersed through the ample grounds, and taking us by surprise as we passed along. There were retreats from the sun under clusters of creeping plants, summer-houses inviting to repose, edges of box or grass, or a curve some twenty feet long, edged with the white bone of a whale that once sported in Arctic seas. The bottom of the garden is laved by an arm of the sea, where each afflux of the tide brings sparkling Atlantic waters for the daily ablutions of the family. If this was not the original garden of Eden, fair Eves trim its paths and pluck its flowers, and grace it with their presence and care.

Among other evidences of good taste, we had the pleasure of examining a portfolio of drawings of the nests and eggs of the birds of New England, and some twenty of them accompanied by paintings of the birds themselves. These were by AUGUSTUS FOWLER, Esq., a brother of S. P., and one of our correspondents. These drawings and paintings are executed with great fidelity and skill, and although done at intervals of leisure from the cares of his business, and without any teaching from others, they would reflect credit upon our best artists.

In the afternoon we visited some of the ancient trees in the neighborhood, and found an Elm at The Plains, which, at eighty feet from the ground measured twenty feet in circumference; another at the Kimball Place, fifteen feet in circumference, and spreading 100 feet, and on the Eppes farm at South Danvers, one that measured, six feet from the ground, 18 feet in circumference. This was a noble specimen. Between ten and fifteen feet from the ground it throws out ten limbs, each of which would make a good-sized tree, and containing in all, it was judged, from six to eight cords of wood! In a grove near the residence of Mr. AARON PUTNAM, we found a specimen of the Locust, eight feet in circumference, the largest we had ever seen. There were several other fine trees, but none so large as these. The grove is extensive, and not a sign of the borer discoverable in it. The branches were covered with a luxurient foliage, and the trunks clean and healthy. The bark stood in sutures of from four to six inches deep, with a greyish silver appearance, and all indicating great age. Other groves of locust which we saw were all more or less affected by the borer, and some of them were rapidly dying out.

On the Eppes farm we saw the precise locality of the original Danvers winter sweet apple. There is now a fine tree on the spot from a shoot which sprang from the old stump. We tasted the apple, and found it sweet, and undoubtedly true to the original. The old Endicott pear tree afforded also a deep interest. It was planted as is supposed by the first Governor of Massachusetts in 1630. Endicott was the first Governor—but he was sent over from England, to look after the affairs of the New England Company. Winthrop was the first Governor chosen by the people. We have already given a portrait of this pear tree in these columns. It is surrounded by a rude fence to keep off sacrilegious hands, and although dilapidated and bowed with age, it looks as if it might last, with good care fifty years longer.

A thousand recollections and associations crowd the mind of the visitor as he stands on these grounds. From a little eminence may be seen in the distance many an object which would, and perhaps has, engaged the attention of the poet, the antiquarian, the historian and statesman, and arrest the attention of the indifferent observer; for it seems that

> "Nature enthroned as queen of loveliest scenes,
> Her outstretched sceptre o'er the valley gleams;
> Each verdant hill, each vale, each rare-seen flower,
> Proclaims her presence, demonstrates her power."

Retracing our steps as the afternoon waned, we passed the house where Gen. Putnam was born, the wolf-hunter of Connecticut and hero of the Revolution. But light faded too fast—

> "Eve's mist now veiled the valley from the sight,
> The hills were shrouded by approaching night;
> The laborer hastened from his daily care,
> The cattle ceased with him in toil to share;
> The feathered songster left his leafy throne,—
> All, all is silent, we are left alone."

Man's activity has ceased—the city lies in repose—but the restless sea still washes the trending shore with its monotonons tones; it tires the ear, but never tires itself. Our pleasant visit is ended, and has brought healthful fatigue. So

> "Out, brief candle,"

and let us seek that repose which to the laboring man is sweet.

VALUE OF HAY CAPS.

On Friday, the first day of August, we had a small field of oats cut which were wet by showers before they were fairly wilted. It was two or three days before they were sufficiently dry to be cocked, owing to the frequent and sudden showers. When cocked, they were covered with unpainted cotton cloth caps, and remained in that position five days. One cock was left uncovered—that was soaked to the bottom, and when dried, had lost that peculiar aroma which all good fodder, when perfectly cured, gives out. The covered cocks were wet on the edges near the ground, but a large portion of each was dry, and after being exposed to the sun a few hours, were bright and sweet. Half the cost of the caps was saved in this single crop.

For the New England Farmer.

RURAL ECONOMY OF THE BRITISH ISLES—No. 17.

FRANCE.

It may make the views developed in these numbers still clearer, if we compare the agriculture of France, in a few particulars, with that of England.

France is one of the finest countries in the world. Its soil and climate are both superior to those of England. This is the testimony of Arthur Young, and of all observers. Take the thirty-six departments which are grouped around Paris, and you find in them forty millions of acres, which surpass in quality, as they do in extent, the twenty-six millions of English acres. You find scarcely any mountains, few natural marshes, extensive plains, sound almost throughout, a soil sufficiently deep, and of a nature most suitable for production, rich deposits in the broad valleys of the Seine and the Loire, and their tributaries, a climate not so moist but warmer than that of England, less favorable, perhaps, to meadow vegetation, but more suitable for ripening wheat and other grains; all the products of England, obtained with less trouble, and in addition other valuable products, such as sugar, tobacco, wine, fruits, textile and oleaginous plants. It would be easy to carry out, step by step, the comparison between France and England, and the result would show the marked superiority of the French soil; that there are no lands so bad, in France, for which worse may not be found in England, nor so rich in England, which may not be equalled or even surpassed, in France.

The French landscape is peculiar and characteristic. The country is comparatively level, and fences almost unknown. Here and there is a chateau, or large farm-house, with its appendages. But the common or laboring people live chiefly in villages, scattered about like islands over the face of the country, with the spire of the church over-topping the cluster of houses. These villages, with a paved street running through them, more resemble compact towns, than they do our country villages. While the English farmers, with Protestant independence, live in their solitary and remote farm-houses; the French country people congregate in these compact villages, for social enjoyment, and to celebrate the rites and festivals of the Catholic church, going every morning a good distance to their field labors.

The French farmer is of a happier temperament than the English, but less energetic, and self-sustained and persistent; he is more economical, and will live well on a smaller income than the English farmer. The love of a country life is not part of the nature of a Frenchman, as it is of an Englishman; if he prospers and wishes to play a part, his heart turns more towards Paris than to his estate. France, too, has been a country of conscriptions, of war, of revolution, sometimes of anarchy, twice of invasions, never of liberty. The elements of society are volcanic, and political shocks, at intervals not infrequent, scatter and waste the accumulations of capital, and impede the national progress in agriculture, as in all arts.

But let us leave these details, and compare, first, the sheep husbandry of the two countries. The whole British Islands contain sixty-two millions of acres, and support thirty-five millions of sheep; while France contains one hundred and six millions of acres, and supports the same number. In proportion to its acres, France should support sixty millions of sheep. But the difference between the two countries becomes more striking, if we compare France with England proper, which has thirty millions of sheep, on thirty millions of acres, or one sheep to each acre. France, on the other hand, devotes three acres to one sheep—so that England proper, in the proportion of acres, has three times as many sheep as France.

All that France has done, in the last eighty years, to improve the race of sheep, may be summed up almost entirely in the statement, that France has introduced the Merinos from Spain; she has not improved her breeds nor developed their size and weight. France has made the wool of its sheep the primary object, and not meat. England, on the other hand, has made meat the principal product of her flocks, and wool the accessary product. The sheep of England average, in net weight of meat, 80 pounds each; those of France 40 pounds each. Of her flock, England slaughters annually, ten millions; the sheep of France not being precocious, France slaughters annually eight millions. England obtains from her flock eight hundred millions of pounds of meat, annually; France, from her flock, three hundred and twenty millions of pounds. The weight of wool on the English sheep, from their size, is greater than on French sheep; but the quality of French wool is superior to that of English wool. Therefore, the product of wool from the flocks of the two countries may be called equal, in value; though the English think they have an advantage in this respect, of twelve or fifteen per cent. Inasmuch, as England feeds three sheep on the number of acres on which France feeds one, and as the produce of English sheep is more than double that of French sheep, the conclusion to which we are brought, in regard to the sheep husbandry of the two countries is, that the return of an English sheep farm is six times greater than that of a French one.

Compare the agriculture of the two countries, in respect to cows and their produce. France possesses four millions of cows, and Great Britain three millions. The French work their cows, and inure them to labor, whereby they become a strong and hardy race, and, in consequence of want of care, bad food and labor, lose their milking qualities. Three-fourths of the French cows are not really milch cows, which all the English are. Observing Frenchmen are of the opinion that the United Kingdom milks from its three millions of cows, double the quantity of milk, which France does from her four millions. Owing to the number of manufacturing towns and cities with which England is crowded, the English farmer sells his milk at four cents a quart, while the price of milk in France is two cents a quart. It is supposed, therefore, that while the French farmers realize twenty millions of dollars, annually, as the produce of four millions of cows, the English farmers realize eighty millions of dollars, as the product of three millions.

Of cattle, Great Britain supports eight million head, of the most improved breeds, never worked, perfect animals, fed and developed so as to yield the greatest weight of butchers' meat, at the earliest age, and killed at the precise period when the animals have reached maximum growth. France supports ten million head of unimproved breeds,

many of them worked to an age when growth has long ceased, that is, after the period when the food consumed by them contributes to their growth; and many of them killed as calves, at a period when growth is most rapid. Great Britain slaughters, annually, two million head of cattle, of an average weight of 600 pounds; France slaughters annually four million head, all of an average weight of 240 pounds. At ten cents a pound, the butchers' meat of two millions of British cattle would pay a hundred and twenty millions of dollars; while the butchers' meat of four millions of French cattle would pay ninety-six millions of dollars.

But that I may avoid wearying the reader with statistics, it may be said in a few words, comparing the total production of the two agricultures, that while France, as a whole, produces ten dollars an acre, England proper produces twenty dollars. The animal produce alone of an English farm is equal to, at least, the total produce of a French farm of equal area—all the vegetable production being additional. Taking the three principal kinds of domestic animals, sheep, oxen, and pigs, the English obtain from these four times more than the French do in meat, milk and wool. Comparing the wheat raised in France, with all its acres, it does not average more than two bushels to the acre; comparing all the wheat raised in England to all its acres, it averages four bushels to the acre.

But the most striking feature, in comparing the two agricultures, is that while the animal produce of England is greater in value than the vegetable produce, the animal produce of France is less than half the value of the vegetable produce. This is a most instructive statement to farmers of every country: for it may be laid down as an axiom in agriculture, that when the animal produce of the country is equal, in value, to the vegetable, its agriculture is prosperous, and when the animal falls far short, in value, of the vegetable produce, its agriculture is in an unsatisfactory condition. We have seen in Ireland how poor its agriculture was, and the fact stood before us, that its animal produce was far below its vegetable, in value; we see the same thing in France; while in England, we find a rich agriculture, accompanied by the fact, that its animal produce is greater in value than its vegetable. The reason is plain enough, to wit, that the great means of increasing the fertility of the soil are the manures of domestic animals. If I could write but one lesson on the door-post of every farm-house in the land, it would be this:—"It is live stock which makes an ungrateful soil available." Agricultural societies, farmers' clubs, wise and grave men in legislative halls, assemble to discuss the subject of manures, and memorialize, respecting guano islands; and it is well, and wise suggestions are, doubtless, made; but this lesson should be, first, inculcated on every farmer, that he must first of all bring his farm and his live stock into such a condition, and into such a relation to each other, that his live stock shall be in proportion to the number of his acres, and in such a proportion, that his annual animal produce on his farm shall at least equal the vegetable in value; then, if he have not manure enough, or knows not how to make it, or how to apply it, to the best advantage, "let him consult the brethren." This lesson may, perhaps, be neglected on new western lands, during the brief days of their virgin fertility; but it cannot be ignored long in northern countries without sad results. M.

LENGTH OF TREE ROOTS.

The practice adopted by many cultivators of fruit, shows that the distance to which the trees extend their roots is but very imperfectly comprehended or understood. We allude more particularly to the practice of digging or loosening small circles of earth at the foot of the trunk, or of working the soil up mellow but a short distance off. We have recently made some measurements to prove the length of the roots of the peach tree. A number of young trees of equal size, and all of the same variety, (the Tillotson,) were set on a piece of ground of uniform quality, at the same time. They were equally cultivated for two or three years, and grew alike. For the past two years, the ground has been allowed to become covered with grass, which has been pastured; but near one side of the orchard, a heap of old straw, manure, &c., has been deposited but has not been worked into the soil, consequently all the fertility which the roots have obtained has *soaked* into the soil. The trees are now about two and a half inches in diameter, and ten feet high to the tip of the highest branches.

The following are the effects of the heap of manure and litter, already described. The tree which stood within two feet of this heap, and whose roots could freely extend under it on one side, has made a growth of shoots the past season, *more than four feet and a half long*. The next tree, seven feet off, had grown *over two feet*. The third tree, fifteen feet off, made a growth of *fourteen inches*. The fourth tree, twenty-three feet off, and all others at greater distances, made no growth more than about *eight inches*. The fourteen-inch shoots weighed about triple the eight-inch shoots, and the two-feet shoots fifteen times as much, those which grew four and a half feet about seventy times as much.

This experiment proves conclusively, that trees ten feet high will send off their roots in search of nourishment to a distance of fifteen feet, and what they thus get on one side only, or through about one-fourth part of their roots, will increase their shoots to triple weight. Consequently, if a tree of this size stood in grass, a circle of fertility thirty feet in diameter, or fifteen feet distant on each side, would greatly increase its thriftiness;' decidedly more, according to our own experiments, than if a circle only four feet in diameter were dug about the foot of its trunk.

If the circle of fertility were only fourteen feet in diameter, or approached within seven feet, the result would be quadrupled, according to the preceding experiments.

Altogether, these results show the great importance of *broadcast* cultivation, and that young trees only ten feet high, and two and a half inches in diameter, even if placed *thirty feet apart*, have already extended their roots so far as to meet together.

An experiment was made by the celebrated Jethro Tull, to determine the length of the roots of the turnip. A piece of hard and sterile ground was selected, and an oblong space dug out of it, about a foot wide at one end, and eight feet wide at the other. This space was filled with rich earth, and a row of turnips planted along the middle. Those at the narrow end were smallest, and they continued to become larger all the way to the wide end, showing that the roots from the bottoms of these bulbs, extended four feet each way. Doubtless the fibres from the roots of most weeds and other plants are quite as long, and if so, the fallacy is evident of the

practice commonly adopted, of leaving a narrow strip or small circle for cultivation, where young orchards are planted with other crops. Suppose, for example, that a crop be planted within two feet of a row of trees; the roots would extend beyond the trees, and withdraw much nourishment which the latter ought to retain. If the roots of the crop were only four feet long, a strip of unoccupied land should be left eight feet wide, without taking the roots of the trees into the account. If the latter were only four feet also, then the vacant and cultivated strip would have to be *sixteen* feet wide. But in two or three years the tree roots would extend much further, and occupy all the surface.—*Country Gent.*

MY FIRST WHISTLE.

Of all the toys I have ever known,
I loved that whistle best;
It was my first, it was my own,
And I was doubly blest.

'Twas Saturday, and afternoon,
That schoolboy's jubilee,
When the young heart is all in tune,
From book and ferule free.

I then was in my seventh year;
The birds were all a-singing;
Above a brook that rippled clear
A willow tree was swinging.

My brother Charles was very 'cute,
He climbed that willow tree;
He cut a branch, and I was mute
The while with ecstasy.

With penknife did he cut it round,
And gave the bark a wring;
He shaped the mouth, and tried the sound,
It was a glorious thing!

I blew that whistle, full of joy,
It echoed o'er the ground;
And never since that simple toy
Such music have I found.

I've seen blue eyes, I've tasted wines,
With many toys been blest.
But backward memory still inclines
To love the whistle best.

For the New England Farmer.

HISTORY OF THE SWALLOW FAMILY.

No. 1.

BY LEANDER WETHERELL.

Already has the culmination of summer passed. The luxuriant verdure and freshness of the meadows, the pasture and the forest, have faded and are fast vanishing away. The insects and the birds, which are the harbingers of the advent of spring and summer, also serve to remind the careful observer of summer's decay and final departure. As the freshness of childhood and youth soon fade from the human face, however carefully cherished, so does the lovely freshness of summer give place to mature autumn. Of the numerous birds that indicate the near approach of summer, there is, perhaps, none that is regarded as a more sure precursor of that season of flowers than the swallow. So does its early departure remind the disciple of nature, that the summer is fast waning. If the swallow, fire-fly and rose-bug remind us of early summer, so does the drumming of the locust, or dog-day fly, and the shrilling of the fall cricket, and the departure of the swallow remind us that autumn is nigh, even at the door. How charming and inspiring these voices of the seasons. How strikingly they proclaim the wisdom and the goodness of God; and happy is he, whose soul, by culture, is attuned to these rich harmonies, for he has enjoyment and pleasure that the multitude know nothing of, any more than the blind do of color, or the deaf of vocal sounds.

The Barn Swallow, *Hirundo rustica* of Audubon, *H. Americana* of Wilson, and *H. rufa* of Gmelin, and others, is known to almost everybody that knows any bird by the common name, called barn swallow, from the fact of their generally building their nests in the barn. Every body seems to welcome with enthusiastic delight the swallows on their first appearance as the heralders of the return of joyous and flowery summer, for a train of delightful ideas and emotions at once fill the mind. Of all the bird families, there is none, probably—except the humming-bird—that surpasses the swallow in swiftness of flight and habits of activity on the wing. What a striking contrast in this respect between the swallow and most other birds. Wilson makes the following calculation: "Let us suppose that the swallow flies at the rate of a mile a minute, which I believe to be within the truth; and that it is so engaged for ten hours a day, and further, allowing that it lives ten years, it would fly in this time, 2,190,000 miles, equal to 87 times round the globe." And yet, it is claimed and advocated by some that this wonderful aerial seraph, as it were, on the approach of winter, aye, before summer is gone, descends to the bottom of lakes, ponds, rivers and brooks, and there hibernates with toads, and frogs, and snakes, and eels, and salamanders, and lizards, and snapping turtles; or, according to other wise ones, seeks winter quarters in some hollow tree, where squirrels and reptiles sometimes make their dwelling place during the winter, and there remains until the return of spring, in a state of torpidity. Other birds, it is admitted by these writers, are migratory, and fly away to warm regions to spend the cold season. But the swallow, whose wing power is superior to all, it is claimed and maintained, dozes away the winter at the bottom of a mill-pond or lake, with the reptile genus, about the lowest order of creation. Such absurd notions are not really worthy of refutation. The wonder is that such an hypothesis can find a single advocate. Yet there are those in New England, aye, in Boston, sometimes called the Athens of America, who maintain this absurdity, without *one single authenticated* fact to confirm it.

Says Audubon, the barn swallow first appears in New Orleans about the middle of Feb.; in the Middle States from the first to the middle of April; and arrive in New England from the first to the tenth of May. At the close of the breeding season, the swallows prepare to depart toward the South, leaving hereabouts soon after the 20th of August. For several days before they take their final departure, they may be observed collected in family groups on the roofs of barns, dead trees and fences, as if engaged in social converse about the migratory journey soon to be undertaken. The thought of sadness comes over the mind as one contemplates their departure, to be absent at the South for almost three-fourths of the year, as he views them for the last time in their accustomed place, on the bright morning preceding the day of their

departure, just ready to rise high above the trees to pursue their journey.

They visit the North in pairs, and return to the South in flocks. It is now a favorable opportunity to notice from day to day, for a few days, the habits of these cheerful and happy birds. They seem remarkably sociable and lively. Let persons be stationed in a line southward, and note their observations, and these flocks will be seen journeying toward the tropics. Says Audubon:—"I saw flocks of swallows for several days near St. Augustine, just preceding Dec. 1st." He was of the opinion that they wintered along the South coast of the Gulf of Mexico.

The habits of the barn swallow are very interesting, and pretty well known, even to the most careless observers. Let the readers of the *New England Farmer* observe the day of the swallow's departure, this summer, the day when you see the last flock, and note it down in your daily journal.

For the New England Farmer.

DEEP PLOWING.

BY F. HOLBROOK.

My Friend Brown:—I was pleased with the article in a late number of the *Farmer*, from your able Northampton correspondent, E. C., on the subject of Deep Plowing. So far as I know, his views are entirely correct; and the good results realized from gradually deepening his plowing, are such as I should expect would follow his practice. He also relates the instance occurring in his neighborhood, of a gentleman from Boston having at once put a great plow beam deep into land which had not before been plowed more than five inches deep, and turning up a large mass of under soil which had never before seen the day, without manuring the land at all, and finding that good crops did not follow the practice, he and his neighbors concluded that deep plowing would not do, that it "killed the land." This is by no means a singular and solitary case of indiscriminate deep plowing, and of incorrect and hasty conclusions drawn therefrom. Similar cases are of too frequent occurrence, and the public should be cautioned against plunging the plow into a poor subsoil at hap-hazard.

The average depth of plowing in New England will not perhaps exceed five to six inches. Now take two farms of equal soil and location, equally manured well, and otherwise cultivated alike, except that on one the plowing is gradually and judiciously deepened till an active surface soil of eight to ten inches is attained, while the other is never plowed more than five or six inches deep, and I feel quite sure that the land plowed deepest will produce the best of the two, and be worth the most in after years, either to sell or to keep. Especially will the advantages of deep plowing be manifest, in those hot and dry seasons which in our climate so frequently occur, when the crops of all kinds will be much more likely to stand through the drought and yield well in a soil deeply worked, than in one that is shallow, with perhaps a natural hard pan near the surface, or an artificial one, produced by the oft repeated action of the sole of the plow and feet of the oxen or horses, in an invariably shallow furrow channel.

An old friend who has resided now twenty years in Illinois, calling on me the other day, remarked that in portions of that State the farmers were already finding it advantageous to plow deeper than formerly, when the land was new; that on his farm, with a surface soil mostly of vegetable mould, on a subsoil of clay, he was now succeeding better in the production of crops, by deep plowing, notwithstanding that the surface soil is somewhat worn, than he did formerly by shallow plowing and a virgin soil; and that every third or fourth year there occurred a protracted summer drought, which was apt to spoil the corn crop planted on shallow furrows, but by deeper plowing the bad effects of the drought were, in a measure, overcome, and a fair yield of corn secured.

From several years of practice and somewhat particular observation, I am persuaded that there are but very few, if any, lands that may not be benefited by gradually deepening the soil, say an inch or two at each breaking up from grass, until a depth of eight to ten inches is obtained. The better class of lands will of course be susceptible of a deeper tilth than could perhaps ever be conveniently given to those of the poorest quality, with naturally a very thin surface soil, and a loose, hungry, or sour, or cold subsoil. The former will also allow of a more rapid increase in depth of furrow than would be advisable in the cultivation of the latter. Of course, no one can reasonably expect that deep plowing, alone, will make the thin primitive soils of New England highly productive. We cannot at the best do much at farming here, without the liberal use of fertilizers accompanying good cultivation. But the advocates of deeper plowing than commonly prevails claim that, in connection with good farming otherwise, their system insures a greater improvement of the farm and more uniformly good crops, taking all kinds of seasons into view, than can be realized from a shallow tilth; that land deeply and thoroughly plowed, derives more advantage from desirable atmospheric influences, is easier to work in the after-cultivation of the crops, and susceptible of more thorough pulverization, than can be attained by the shallow and superficial plowing which too commonly prevails.

But as remarked at the outset, a portion of the community need to be cautioned against indiscriminate deep plowing. Many persons are now yearly going to farming from other business, entering upon their new calling, or what was, perhaps, the pursuit of their younger and happiest days, with much enthusiasm and delight, and at the first go-

off at farming, they do not readily see how there can be too much of so good a thing as deep plowing. The mistake committed by the gentleman from Boston, as related by your Northampton correspondent, is therefore of frequent occurrence. Land of inferior quality, especially as regards the subsoils, and that never was plowed more than four to six inches deep, is, perhaps, at once plowed ten or twelve inches deep, turning up a huge slice of loose and hungry, or cold, or sour subsoil, and burying the manure at the bottom of the deep furrow, away from the agents of decomposition, where it lies perhaps quite inert; the crops are planted on the deep furrows, and not succeeding well, the proprietor is perhaps mortified and discouraged, and concludes that deep plowing will not do. Now the great point is to study the nature and condition of the soil and subsoil, and then adapt the practice to them. In some cases, where the subsoil is quite good, and manure can be plentifully applied, even if the land has heretofore been plowed shallow, a furrow eight or nine inches may at once be taken, with benefit to the land and all the crops of the rotation following—especially if fine compost is plentifully and thoroughly intermingled with the under soil now turned up to the surface, by cross plowing to the depth of four inches. The after-cultivation of the crop also will stir the subsoil and manure up together. It is a good practice in such cases, to leave the sod, or, what was before the deep plowing, the surface, underneath through the whole rotation, and the subsoil on top, where it is made active by the compost intermingled with it, and by the modifying influences of the atmosphere. If, when preparing this land for grain and grass seeds, the sod is thus left undisturbed beneath, and the seeds are cast upon the subsoil turned up at the first plowing, the new surface, while the land lies in mowing, will be filled with the thickly matted sward, so that by the time the land again needs plowing, this portion that was originally subsoil, will be well charged with vegetable matter, and be good, active soil, adding materially to the depth of the soil of the field. This I call good farming. There are other cases, where, the subsoil being not so promising, but still not very forbidding, the plowing may be advantageously deepened some two inches at a time, till the desirable depth is attained; and there are others, where the land being decidedly poor, with a sour and deleterious subsoil, the plowing cannot be profitably deepened, except by a very gradual process; though still a little at a time of the subsoil may be brought up and corrected by good tillage, and in time a soil of comfortable depth be attained. In these matters one's eyes and observation must be wide awake, and his own good judgment must be the guide in practice.

I have sometimes thought, that in farming, almost more than in any other business, theories and methods in themselves, most excellent, are hastily condemned from being injudiciously practiced, while it is wholly the bad management that is at fault, and should be condemned.

Brattleboro', Vt., August 7, 1856.

OLD GORDON AND HIS LADDIES.

John Gordon, who died near Turriff, Bangshire, some time ago, attained the age of one hundred and thirty-two. All the travellers who chanced to call at the neighboring inn of Turriff, were uniformly directed by the landlady, Mrs. Wallace, to the cottage of the patriarch, "where they wad see," she used to say, "the auldest man i' Bangshire—ay, in a' the warld." Among the visitors one day, about the close of harvest, was a young Englishman, who, coming up to the door of the cottage, accosted a venerable looking man employed in knitting hose, with, "So my old friend, can you see to knit at your advanced period of life? One hundred and thirty-two is truly a rare age."

"Deil's in the man! it 'll be my grandfather ye're seeking—I'm only seventy-three, ye'll find him round the corner o' the hous." On turning round the corner, the stranger encountered a debilitated old man, whose whitened locks bore testimony to his having long passed the meridian of life, and whom the stranger at once concluded to be Jordon himself. "You seem wonderfully fresh, my good sir, for so old a man! I doubt not you have experienced many vicissitudes in the course of your very long life." "What's your wull, sir?" inquired the person addressed, whose sense of hearing was somewhat impaired. The observation was repeated. "O, ye'll be wanting *my father*, I reckon—he's i' the yard there!" The stranger now entered the garden, where he at last found the venerable old man busily employed in digging potatoes, and humming the "Battle of Harlaw." "I have had some difficulty in finding you, friend, as I successively encountered your grandson and son, both of whom I mistook for you; indeed, they seem as old as yourself. Your labor is rather hard for one of your advanced age." "It is," replied John; "but I am thankfu' that I 'm able for't, as the *laddies*, puir things, are no very stout, now!"

Glasgow Railway Journal.

To Ascertain the Weight of Hay by Measurement.—We observe a statement going the rounds in some of the agricultural journals, that 100 cubic feet of hay in a stack or mow, make a ton!! In a work, published some years ago, we think the author said 268 cubical feet of hay in a mow, which had become well settled, make a ton. "Hay in the field-rick," says Low, weighs somewhat better than 112 lbs. the cubic yard, after being comprised in the stack, it weighs from 140 to 180 lbs., and when old 200 lbs." Or from 270 to 482 cubic feet will make a ton.

We have had considerable experience in this matter, as we put up a building some years ago, for the purpose of stowing away hay, which we intended for market. For several years we sold hay from this building, both weighing and measuring the quantity sold, till at last we came to the conclusion that weighing was unnecessary.

Since that, we have measured large quantities,

for our neighbors, who have sold at vendues, and, so far as we have learned, the purchasers were well satisfied. It appears to apply well to clear timothy, and clear clover, or a mixture of the two. Take a mow of 12 or 15 feet in depth, and which has been filled with hay, as it was drawn from the field, and has been lying till spring, and measure the length, breadth and height in feet—multiply them to get the cubical content. For instance—the length is 20 feet, breadth 40 feet, and height 16 feet—20 times 40 make 800, multiplied by 16, equal 12,800 cubic feet, which being divided by 700, the number of feet that make a ton of 2000 lbs., will give 18285/7 lbs. The top of a mow, say about one-third, we rate at 800 feet to the ton, the middle 700 feet, and the bottom of the mow at 600; so the whole bulk would average 700 feet, if the mow is 12 or 15 feet deep, but if only 5 or 6 feet deep, count 800 feet for a ton, and so accordingly with other bulks.—*New Jersey Farmer.*

PRINCIPLES OF AGRICULTURE.

A paper was recently read before the Farmers' Club of New York, by Dr. R. L. Waterbury, which seems to have conflicted with the views of the savans of that illustrious body, consisting of Messrs. Mapes, Waring, *et id omne genus*, who undertook to answer it. On reading the report of their remarks, Dr. W. found it necessary to disclaim the views attributed to him, and in doing so gives the purport of the paper read by him as follows:—

That without the use of any foreign fertilizer, produce enough may be sold off from a farm in most portions of the Union to pay the expense of conducting it; and yet, by judicious management, the soil may be annually improving in condition;

That this can be effected easiest in those portions of the Union where the value of land is the least, and where, consequently, the farms are largest, and the longest rotations of crops can be profitably resorted to;

That no system of farming is deserving of our attention that does not recognize the necessity of farm exports;

That a State may, to some extent, export agritural products, without diminishing in capability to produce them;

That an inspection of the census returns of the United States and of the State of New York, shows that the amount of crops of this State has increased for the last ten years much faster than the area of improved lands in the State, and that consequently the lands cannot be "running out;"

That the processes of Nature, to which we owe the present alluvia condition of the surface of the earth, are still at work, and that land left entirely to itself will, by the action of water and vegetation, improve in fertility;

That the process of tillage alone may be made to accelerate this improvement, and help to provide for the necessary waste of marketing;

That rain penetrates the porous parts of the earth's surface, and percolates through them until it comes to impervious strata, and that it runs along this impervious strata until it finds egress as springs, and that spring water is impregnated, more or less, with saline substances;

That the evaporation which is continually going on of the water from the surface of the earth, leaves the saline matter in the surface, as but a small part of the water that falls as rain ever reaches the sea;

That the mineral springs of Saratoga and other localities, are exaggerated illustrations of this process, and the more fertile conditions of valleys is to be in part referred to the same cause;

That, in the present thinly populated condition of our Continent, the true purpose of American agriculture at this time is to wisely direct these natural forces, rather than apply pinches of guano and tea-spoonfuls of super-phosphates to individual plants, although such applications may pay on some farms, and probably do pay well on all *market gardening* operations.

The objection to soil analysis is this:—

The difference between the early soil of Virginia and the same soil in its present condition, has been made by the loss of 1,200 lbs. of alkalies to the acre. But this 1,200 lbs. forms not quite three ten-thousandths (000.27) of the soil to the depth of a foot.

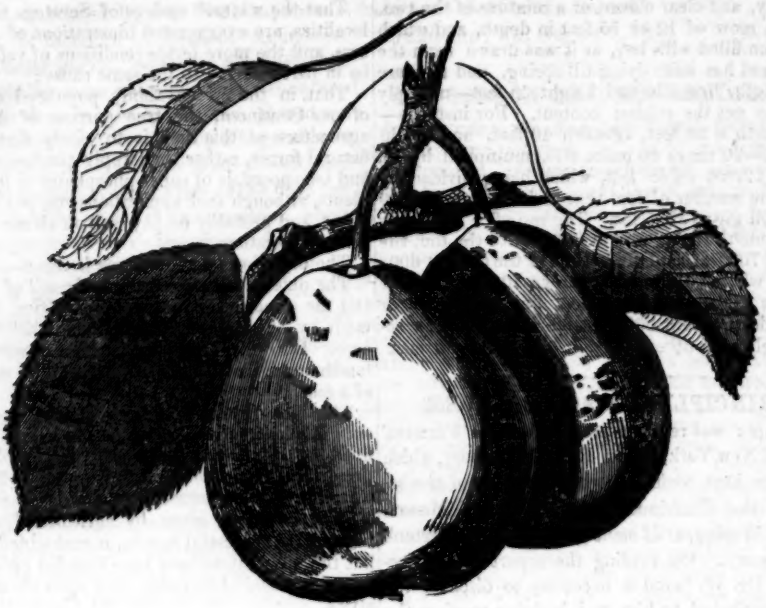
The idea that any amount of variation within such infinitesimal limits can be measured and defined by *quantitative analysis*, is absurd. Top-dressing of the same amount would, in the same way, fail of being detected.

That directions given by agricultural chemists have led to successful results, is undoubtedly true; but these directions have been founded rather upon experience and observation than upon chemical analysis.

A GARDEN.

Not wholly in the busy world, nor quite
Beyond it, blooms the garden that I love.
News from the humming city comes to it
In sound of funeral or of marriage bells;
And, sitting muffled in dark leaves, you hear
The windy clanging of the minster clock;
Although between it and the garden lies
A league of grass, washed by a slow, broad stream,
That stirred with languid pulses of the oar,
Waves all its lazy lillies, and creeps on,
Barge-laden, to three arches of a bridge
Crowned with the minster-towers. TENNYSON.

ROSSE'S TELESCOPE.—The Earl of Rosse, who has recently completed another telescope, the largest ever made, alluded, at a meeting in London, to its effects. He said that, with respect to the moon, every object on its surface of 100 feet in height was now distinctly to be seen; and he had no doubt that, under very favorable circumstances, it would be so with objects sixty feet in height. On its surface were craters of extinct volcanoes, rocks, and masses of stones, almost innumerable. He had no doubt that if such a building as he was then in were upon the surface of the moon, it would be rendered distinctly visible by these instruments. But there were no signs of habitations such as ours—no vestiges of architecture remain to show that the moon is or ever was inhabited by a race of mortals similar to ourselves. It presented no appearance which could lead to the supposition that it contained anything like the green fields and the lovely verdure of this beautiful world of ours.—There was no water visible—not a sea or a river, or even the measure of a reservoir for supplying town or factory—all seemed desolate.



THE SECKEL PEAR.

The fruit from which the above portraits were taken, was from the garden of the Messrs. J. F. C. HYDE, of Newton Centre. We cannot do better than give Mr. Downing's description of it. He says—"We do not hesitate to pronounce this American pear the richest and most exquisitely flavored variety known. In its highly concentrated, spicy, and honied flavor, it is not surpassed, nor indeed equalled, by any European variety. When we add to this, that the tree is the healthiest and hardiest of all pear trees, forming a fine, compact, symmetrical head, and bearing regular and abundant crops in clusters at the ends of the branches, it is easy to see that we consider no garden complete without it. Indeed, we think it indispensable in the smallest garden. The stout, short-jointed olive-colored wood distinguishes this variety, as well as the peculiar reddish-brown color of the fruit. The soil should receive a top-dressing of manure frequently, when the size of the pear is an object. The Seckel pear originated on the farm of Mr. Seckel, about four miles from Philadelphia. It was sent to Europe by the late Dr. Hosack, in 1819, and the fruit was pronounced by the London Horticultural Society, exceeding in flavor the richest of their autumn pears.

Fruit small, (except in rich soils,) regularly formed, obovate. Skin brownish-green at first, becoming dull yellowish-brown, with a lively russet red cheek. Stalk half to three-fourths of an inch long, slightly curved, and set in a trifling depression. Calyx small, and placed in a basin scarcely at all sunk. Flesh whitish, buttery, very juicy and melting, with a peculiarly rich, spicy flavor and aroma. It ripens gradually in the house, from the end of August to the last of October.

ESSEX COUNTY.—We are pleased to learn that the late Dr. JOHN G. TREADWELL, who recently died in Salem, has by legacy left the Essex County Agricaltural Society a farm of seventy acres in the town of Topsfield, to be used as an experimental farm. Blessings will rest on the memory of the man. Why has not a similar bequeathment long before this been made in old Middlesex? If men understood better what would perpetuate their good name, they would often give their philanthropy a different direction.

SOAP.—Some one has sent us a glowing description of this article, from which we are almost led to believe that it would wash the skin of an Ethiopian, white. He says some female has written for our columns, who has been experimenting with soap, and has found borax mixed with it very economical. He desires her to try *his* soap—well, we

are willing she should,—but until we try it ourselves, can neither vouch for his declarations, nor add any experiments of our own. We have a high regard for clean linen, and for the "ladies hands," too; if they are honestly soft, so much the better. But his soap comes to us too soft, altogether. We must see it, feel it, rub it, lather it, wash with it, before we can say anything more to the women about it.

For the New England Farmer.

INQUIRIES ABOUT APPLE TREES.

New York, Aug. 8th, 1856.

MR. EDITOR:—In a recent visit to my place at Westfield, Mass., I saw a number of your work, entitled the *New England Farmer*. I was very much pleased with it, and read every chapter with interest. The chapter on *Lawns*, in particular, should be read by every farmer and rural improver of the land. It is a subject in which our farmers do not take near the interest they should. I hope it will be the means of stirring up every one of your numerous readers to the importance of the subject. Enclosed you will find two dollars; please send me the paper.

In this connection I will take the liberty of troubling you with a few questions in regard to the setting out of a couple of orchards on my place. There are two pieces which I intend planting with apple trees, one of which is gravelly land. In setting out some trees last year, in the same kind of ground, we dug holes 3 feet deep and 6 feet across, which we filled with good turf soil and set the trees in it, and in the fall put manure around them a short distance from the body of the tree. Do you think the above a good plan? My object is to force the trees all that is possible. My other piece is meadow land, on which, heretofore, I have first dug holes large enough to admit the roots, but put manure around them same as those on the gravelly land. Do you think I have pursued the best plan with these? I want to set the trees a sufficient distance apart so as not to interfere with the usual farm crops. Last year we put them some 30 and some 40 feet apart; this year we thought of putting them 50 feet apart. Do you think the distance too great? Which do you think is the best season to set trees out, spring or fall, and which the best place to get them from to set out in Westfield climate?

Last year we set our trees out in the fall and got them from Parsons', Flushing, Long Island, and out of 300 trees nearly 40 have died. What age do you think it is best to have the trees? What are the best varieties of winter apples, that is, the most profitable to raise in our soil? I find what I intended for a few inquiries have become a long list, but I hope you will find time to answer them, as many of the farmers in our vicinity would like to have your opinions very much. I am with great respect, your friend, C. L. INGERSOLL.

REMARKS.—We are always gratified to learn that the subjects discussed in these columns are well received, and are affording suggestions for improvement. Indeed, this assurance, often freely expressed, forms the spring of action with us, and strengthens and sustains and ennobles the calling in which we are engaged. The money interest of this establishment, to the proprietor, we know to be entirely of secondary consequence, as the income of another branch of industry, already immense, is more than sufficient to gratify any personal ambition of a man self-taught, self-made, and who has the happiness and welfare of the world at heart. The things requisite to supply our own simple wants might well be afforded by the acres we cultivated, and leave us sufficient leisure to gratify the taste in exploring abstruse subjects and treasuring up the lore of the books, did not the promptings of duty impel us to strike while the iron is hot, and impart to the waiting world portions in due season of such as has been committed to our care.

We labor, therefore, with a happy zeal. Our daily walks and conversations with you are all of the most pleasing character. We impart something, but gain a great deal more from you through the aid of your pens and your approbation of our enterprise.

In this spirit we receive and reply to the letter of our correspondent from New York. The chapter on *Lawns* was written by our Associate, Judge FRENCH, a gentleman qualified by observation, reading, and actual experience, to write correctly on the subject. To those who examine his grounds, laid out by his own skill, and prepared mainly with his own hands, no testimony of ours is necessary. His articles are not only written with a graceful ease, and in a most attractive style, but as Burke said of a certain kind of oratory, they go home to men's business and bosoms. They all have a direct practical bearing, which at once pleases all practical men, while the purity, vigor and ease of their style attract the student or scholar.

The inquiries of our correspondent afford us an opportunity to speak once more of our favorite employment, *the cultivation of trees*. There is no branch of husbandry to which we have given so much attention, and none in which we have been more successful. A budded or grafted tree is a fair representation of civilization. It shows, in a degree, the advance of scientific effect, and ministers greatly to the necessities of man. Could we fix the doom of bad spirits beyond the great river, it should be no worse than to banish them to a world without trees! Trees are social, living things. They have a language all their own—they stand between us and the fierce Euroclydon or the burning sun;—amid their branches the birds repose, and cattle quietly ruminate in their grateful shade. They condense atmospheric moisture and renew the springs. But in the date, the almond, the hickory, and numerous other nuts, and in the apple, pear, peach, plum, and a variety of other fruits, they compose a very considerable amount of the food of man. They warm, shelter, and feed

us; they take up, use, and purify the air which has been exhausted of its oxygen by man and the animal kingdom, and give great beauty to the landscape.

By *meadow* land we suppose our correspondent means low land that produces the common upland grasses, such as herds grass and red-top. The prevalent opinion has been for many years that low and rather wet lands were not suitable for apple trees. The late Mr. JAMES BROWN, of West Cambridge, who had extensive orcharding on almost all varieties of land, informed us that the apple trees on his low lands, had for many years produced a better crop than those on the hill lands. They will not flourish long, however, where standing water remains for any considerable time.

On the gravelly land, mulching with hay, fine chips, straw, saw-dust, or fine brush is of great service. The latter affords a fine material, as, while it sufficiently shades the ground to prevent excessive evaporation, it does not prevent the access of light and heat. In the fall it is easily removed from the stem of the tree, so as not to harbor mice, who love to feed on the young and tender bark. After trees have been well manured and dug about, perhaps there is no better material for mulching than a coat of two to four inches of old and fine meadow muck, which should be spread about the tree in a circle of six feet in diameter. Holes to receive the tree which are six feet across, and eighteen inches deep are liberal. On land with a hard pan three feet deep is undoubtedly better, if one can afford it. If manure is mingled with the earth in the holes, it should be well decomposed. If applied after the tree is set, it should be slightly dug under the surface.

We do not think it well to force the tree to an excessively rapid growth; in such case it grows late in the season, so that the wood is not matured, is liable to be broken by the winds or snows, and is more susceptible to the cold. A regular annual growth of from ten to twenty inches on the leading branches is enough.

There is considerable diversity of opinion as to the distance of trees from each other. If too near, the limbs soon meet and obstruct each other, and shut out the sun; and the difficulties of cultivation are increased. On the other hand, if too far apart, in order to get a desirable number of trees, they would cover such an amount of land as few farmers could find manure to enrich or to keep under cultivation.

At 40 feet apart, 27 trees would cover an acre, and 18½ acres would be required for 500 trees. On our small New England farms, where there is usually a lack of manure, the true course is to plant trees at such a distance from each other as will enable the leading branches to meet when the tree comes to maturity; the ground will then be covered, but not densely so, and the whole of it occupied. If at maturity the limbs mingle a little, it is better to shorten them in than to cover a large space by setting the trees farther apart. At 29 feet, we get 51 trees to the acre, and this, in our opinion, is better than to go over more ground by setting them at a greater distance. However, all this may depend on circumstances. If land, and teams to plow are plenty, and manure is abundant, 40 feet apart may not be too much. After trees have been set some fifteen years, the orchard crop should be considered a distinct crop, and the trees must not be robbed of their supplies by corn, potatoes, and especially the small grains. The soil ought to be kept loose, and in good condition, by proper applications of manure. Under such circumstances, the orchard will pay better dividends than banks, railroads or manufacturing stocks usually do.

Opinions vary, also, as to the best time for transplanting apple trees. If we were ready, we should not hesitate to transplant in the autumn; and we are not aware by the condition of any trees which we have observed, that there is any advantage in the spring over the autumn, or vice versa. If the trees are good ones, carefully taken up, and preserved if kept out of the ground long, and then well set, ninety-eight out of a hundred ought to live and grow thriftily.

We prefer trees grown north of us for transplanting, and those two years from the bud are more certain, under the common management, to live and grow, than those of a greater age.

The Danvers Winter Sweet, Winter Green Sweet, Ladies' Sweet and Russet Sweet, are all good varieties.

HEALTH.

Heaven never granted a richer boon than health; and without it, all other blessings are comparatively valueless. Yet it is often lighly esteemed and carelessly thrown away, and never fully appreciated until it is gone. I have seen the mistress of a splendid mansion, surrounded by every luxury which wealth can command, lying upon her couch, pale and miserable, fretful and unhappy. Within her reach were the most delicate viands and exquisite fruits, yet she could partake of none. Health was no longer hers. She had parted with it for the sake of gratiying her vanity, by wearing thin shoes, to display the beauty of her foot, and now, when consumption was preying upon her, she repented her folly. but it was too late; and though she would willingly give all that she possessed, the priceless treasure could not be recalled. The thin, ghastly-looking gentleman, who reclines in his luxurious easy chair, with his gouty foot upon a pillow, sighs and groans in anguish, and thinks of the many weary nights of pain, when the bed of down and the silken covering could bring him no repose.—How he envies the plough-boy who whistles on the green fields, whose step is elastic, and whose heart is light and gay at his toil, while his sleep is sound and refreshing.

What is wealth to the invalid but a bitter mockery which can yield no happiness. Then prize the rich boon of health, ye who possess it, and lift your hearts in gratitude to God, even though your lot may be one of poverty and toil.

For the New England Farmer.

HOW MUCH EDUCATION FOR THE FARMER?

SIR,—'Tis true that they sent me to college
And thought there was in it no harm,
For they thought that a little more knowledge
Could not injure my work on the farm.

They said, but few would not say it,
That culture, expansion of brain,
Might assist, and perhaps would repay it,
But most surely not injure the grain.

And is there in tones of the matin,
In chemistry, angles, the cone,
Or in botany, Greek or the Latin,
Any milk that will nurture a drone?

I went, and I labored with pleasure,
For culture of mind and of soul;
I returned, and am seeking the treasure
For to clothe and to nourish *my whole*.

How changed is the home of my childhood,
No shade trees, nor flowers nor lawn,
Nor stream with its grove and its wild-wood,
And the joy of my heart, she is gone.

I long for a farm which has beauty
In nature, improvements in stock,
And a wife in the house, in whose duty
There is happiness, song, and good luck.

What course with a boy would you follow?
Keep him on the farm or at school,
Run the risk of a fool for a scholar,
Or a farmer in spite of a fool? X. X.

P. S.—If *she* to my hopes is no sinner,
Whenever you come into town,
You are welcome to call for a dinner,
If your answer's "the pure Simon Brown."

I have prefaced my query somewhat at length, in hopes to draw out from some one the true ideal of a model farmer's home, as well as what kind, and how much education a farmer should have. Small potatoes, muck, the habits of animals, &c., are all very interesting; but is the development of the true wants of our natures, and how we may best satisfy those wants, of less importance, when our true happiness consists only in supplying those wants? But if the all-powerful dollar is to take precedence, then will the subject, as heretofore, be discussed by the fireside, in angry debate, over a few pennies, for some trifling luxury. The idea of a gentleman farmer or a farmer's daughter at a boarding-school, has been ridiculed. Perhaps some one can make it appear, that the farmer's vocation is not inconsistent with true education, refinement in taste and feeling,—that the tones of the piano and the splash of the churn may be made to harmonize, and a singing as well as a scolding wife can make the butter come. Let him who has *the idea*, write.

Ware, Mass., July, 1856.

REMARKS.—Write yourself. You have touched the right strings,—give us more chords.

☞ Col. DANIEL NEEDHAM will deliver the annual address before the *Windsor County Agricultural Society*, at Woodstock, Vermont, September 25th.

For the New England Farmer.

HAY TIME.

The busiest time in the year. The time when there is not a moment to lose. The days are the longest in the year, but they are not quite long enough. There are no other days when men, and women too, rise so early and so willingly, when all go to their labor so cheerfully. The labor of the early morning, when the mower, with stalwart arm and newly-ground scythe, lays the sweet-scented and dew-loaded grass in straight and even swaths, is the pleasantest labor of the day. Before the beams of the rising sun shoot across the green meadow, he is at his work. The glittering dew-drops sparkle in the first rays of the morning, as they scatter before his keen and steady stroke. The music of his rifle rings clear in the still morning. The air is balmy and bracing. The blackbird and bobolink are whistling by the side of the meadow. The redbreast, perched upon the top of a distant tree, is pouring forth his full, clear notes, and all nature seems just waking into new life. But hark! the housewife has been busy at her task, and the shrill horn summons the mowers to their morning meal. The fragrant coffee, the golden Johnny cake, the sweet butter, the substantial bacon or cold beef, and then to wind off, a plate of muffins or a milk-toast, constitute the morning repast. The mower's breakfast is no light affair. For two hours he has been using his full strength. His muscles have had free play. He has drawn without stint, upon the powers of his system, and now he must have a new supply of that which is to give him strength for the remaining labors of the day. Breakfast over, he returns to the field, and is soon followed by the boys, who, with fork in hand, scatter the swaths evenly over the surface of the meadow. Ten o'clock has now arrived, and the dew has dried up. The hay that was cut the day before and left in the cock, must be spread. So the scythe is hung on a tree, and the mowing for the morning is over. The haymaker seizes his fork, and shakes out the cocks of hay, laying it up lightly to the sun and air. Having completed this, he is ready for the luncheon which his careful wife has sent him, and taking his seat upon the ground under the shade of the tree upon which his scythe is hung, he uncovers the basket, and calling the boys, they partake of the coffee, and doughnuts and cheese, and apple-pie, with which it is filled.

Now, boys, we must turn the hay. Shake it well up to the sun, for we must get it into the barn immediately after dinner. When this is all nicely done, they shake up again the thickest of the swaths, which were cut in the morning. And now the sun has reached the meridian, and the youngest boy goes to the pasture for the oxen, and the eldest, taking the scythe from the tree, goes to the house with his father. Dinner is nearly ready, but there is no time to be lost. So while they are waiting for dinner to be put on the table, and the boy to come from the pasture with the oxen, they take a pail of water and go to the grindstone, and put a new edge upon the scythe, that it may be ready for use when it is wanted. Now dinner is ready, and they take their seats at the well-spread table, with appetites none the worse for the luncheon in the field.

Haymakers do not live to eat, but they eat to live and work, and they do both with a hearty

good will. Having satisfied their wants, they rest a few moments, and then, Come, boys, we've no time to lose. So the boys yoke up the oxen, and take the cart with the rakes, and return to the field. The father is there before them, raking the cocks of hay, which have been spread into tumbles, that they may be ready to load upon the cart. Soon they are all ready; and now the oldest boy gets into the cart, and the youngest takes the rake, and the father pitches the hay on to the load. It is busy work. You must rake clean, my boy. Fly around, fly around, make clean work after the cart, if you would not be called a sloven. We have now got on twenty tumbles; that is enough, we will take the rest next time. Now let me take the rake, and brush down the load. There, that will do. Now put up the bars, after I drive the load out of the field.

And now we've got to the barn, and driven the load on to the floor; and, boys, we will have a drink of that nice hop beer which mother brewed yesterday, before we unload. This unloading hay is warm work, in a hot day. It will make the juice run out of a man or boy, if he has got any in him; but it must be done. So, boys, both go on to the mow. Well, the hay is off in less time than it took to put it on; and now for another drink of beer. Now for the other load. This is soon tumbled up, and pitched on to the cart. The oldest boy is now sent up to the barn with the load, with directions to leave it on the floor, and unyoke the oxen and leave them in the yard, and return to the field. They now set to work to rake up the hay that was cut in the morning, and put it into cocks to keep it from the dew. This work they diligently pursue, till the cocks are all standing in rows, of uniform size, and neatly trimmed. And now the father takes down the scythe, and, as the sun is declining, and the dew begins to fall, and a refreshing coolness pervades the air, he gives full play to his muscles, and swings his scythe with a vigorous arm. It is newly-ground, and the edge is keen. He reaches well forward, and rapidly falls the grass before him.

One of the boys drives the oxen to the pasture, and drives home the cows, with full udders, the milk streaming from their teats. The other boy goes into the garden with his basket, and digs a peck of potatoes, and gathers a parcel of cucumbers from the vines. When the cows reach their yard, the boys take the bright pails from the bench by the door, and engage in their evening task of milking them. The milk runs in copious streams, and the rich froth foams up in the pails, while the cows, happy to be relieved, quietly chew the cud. And now the sun is going down behind the hill, and the dewy air is filled with fragrance. The swallows are twittering in their nests under the eaves of the barn, and the chickens are gathering to their roosts. The pigs are grunting their satisfaction over the full pail of skimmed milk in the trough, and the turkeys are lazily mounting to their resting-place on the roof of the shed.

The day's work is done. Father has come from the meadow, and goes to the pump, and laying aside his hat, and rolling up his shirt sleeves, applies freely the clear, cold water to his arms, and head, and neck, and feet. The boys had washed up bright and clean before him. Supper is ready, and mother is waiting for them, with a cheerful smile. The hot biscuit, the sweet butter, the rich cheese, the apple-pie, the cup of tea or the mug of warm milk, compose the meal. They deliberately satisfy their appetites, and talk over the labor of the day, and the plans for to-morrow. And now, boys, I think you are tired enough to go to bed. Remember, you must be up early in the morning, and milk the cows, and pitch off that load of hay before breakfast. There is no time to be lost.

There, Mr. Editor, there is a day's work in haytime, when you and I were boys on the old farm at home. Does it not remind you of the good old times, before mowing-machines and horse-rakes were invented? Those were busy days. We expected to work hard while they lasted. We had not heard of the ten hour system then. Both master and hired man expected to work as long as daylight lasted. Work was done in those days by strong arms and brave hearts; and nobody thought of giving out till the hay from the upland was all in the barn, and the hay from the meadow was neatly stacked. We worked hard, to be sure, but it was cheerful, pleasant work. Does not your heart leap with pleasure when you think of those times? We were full of life, and ambitious to show ourselves men. If we did not take so wide a raking as the men, we took care to keep out of their way. We did not carry so wide a swath, but we pointed out well, and cut clean, and took good care of our heels. I remember the first scythe I ever had. I was about 16, and as puny a lad as you would wish to see. But I wanted a scythe. So I walked four miles to a store where they had a good assortment of them, and picked out one that I liked. It was but about three feet long, and I got a light snath to go with it, and then went to a grindstone that was turned by water, and got it ground. I then had it nicely hung, so that it balanced just right, and got me a new rifle that exactly fitted my hand, and then I was a man, every inch of me. I had learned how to whet a scythe, and I took especial care to keep it sharp. I soon got a knack of swinging it easily, without a great outlay of strength, for this I had not, so I made up for want of strength by sleight of hand.

Many a bright morning have I gone into the field, and led off three or four men, with long scythes and brawny arms, and if my swath was but half as wide as theirs, I always came out ahead. And here let me say, if you would make a boy love his work, always furnish him with a good tool, which he can call his own, and teach him how to use it.

I love to think of those old times. It makes me feel young again. I love to think of the men and boys with whom I worked, and of the fields, where we worked, and the maples by the border of the meadow, and the old oak under whose shadow we used to take our luncheon. They were busy times, but happy times, those old hay times. R.

HYDROPATHY APPLIED TO SWARMING BEES.—Dr. Robinson, of Farmington, N. Y., informs us that he succeeded perfectly with a hive of bees that persisted in collecting in thick masses outside the hive and doing nothing. He bored a hole through the top, which happened, as he wished, to strike the space between the combs. He then fitted a small hive above the old one, and standing at a respectful distance, with a syringe in his hands, continued to shoot the bees with a delicate broadside of cold water. They soon retreated to the interior, and as-

cending through the holes, occupied the new hive above. They immediately went to work to fill it, and in about five weeks it was found to contain twenty pounds of honey. Another person had accomplished the same purpose by covering the top with fresh branches of trees, and then imitating a shower of rain by drenching these branches with a watering pot.—*Country Gentleman.*

NATIONAL AND STATE SHOWS FOR 1856.

American Pomological Society	Rochester, Sept. 24.
Canada East	Three Rivers, Sept. 16, 17, 18.
Canada West	Kingston, Sept. 23, 24, 25, 26.
Connecticut	New Haven, Oct. 7, 8, 9, 10.
Georgia	Atalanta, Oct. 20, 21, 22, 23.
Illinois	Alton, Sept. 30, Oct. 1, 2. 3.
Indiana	Indianapolis, Oct. 20, 21, 22, 23.
Maine	Oct. 28, 29, 30, 31.
Michigan	Detroit, Sept. 30, Oct. 1, 2, 3.
New Hampshire	Oct 8, 9, 10.
New Jersey	Newark, Sept. 10, 11, 12.
New York	Watertown, Sept. 30, Oct. 1, 2, 3.
North Carolina	Raleigh, Oct. 14, 15, 16, 17.
Ohio	Cleveland, Sept. 23, 24, 25, 26.
Pennsylvania	Pittsburg, Sept. 30.
South Carolina	Columbia, Nov. 11, 12, 13, 14.
U. States Agricultural Society	Philadelphia, Oct. 7, 8, 9, 10.
Wisconsin	Milwaukie, Oct. 8, 9, 10.

COUNTY SHOWS IN MASSACHUSETTS.

Barnstable	Barnstable, Oct. 7, 8.
Berkshire	Pittsfield, Oct. 1, 2, 3.
Bristol	Fall River, Oct. 1, 2.
Essex	Newburyport, Oct. 1, 2.
Franklin	Greenfield, Oct. 1, 2.
Hampshire, Franklin and Hampden	Northampton, Oct. 7, 8.
Hampshire	Amherst, Oct. 9, 10.
Hampden	Springfield, Oct. 1, 2, 3.
Housatonic	Great Barrington, Sept. 24, 25.
Middlesex	Concord, Sept. 20.
Middlesex North	Chelmsford, Sept. 17.
Middlesex South	Framingham, Sept. 17, 18.
Norfolk	Dedham, Sept. 30, Oct. 1.
Plymouth	Bridgewater, Sept. 24, 25.
Worcester	Worcester, Sept. 24, 25.
Worcester West	Barre, Sept. 18.
Worcester North	Fitchburg, Sept. 19.
Worcester South	Sturbridge, Oct. 1, 2.

For the New England Farmer.

CROPS, &c., IN VERMONT.

MR. EDITOR:—As items of news concerning crops, weather, etc. etc., are interesting to most readers, I thought I would just say a few words respecting such things in this section of our State.

The crops are, as a general thing, promising an abundant yield. Corn, till within a few days, had grown for a few weeks almost beyond all precedent, and the various cereals are in a forward state, and look remarkably well. Potatoes look well and healthy, with no appearance of the rot, that I have heard, but in some gardens have been affected. The hay crop thus far, has been abundant and good, or rather till one week ago on Monday last, when the weather changed from the nicest hay-weather to a very disagreeable "wet spell." It has rained every day for nine days in succession, and with the exception of a few loads that were unfit, there has been no hay got in since the commencement of the "wet term."

Yesterday, (Aug. 11th,) about the time people were just ready to draw in their hay, there came up a shower, which finally ended in hail, that, for so short a period, did great damage. My nearest neighbor, west, has had his crop nearly destroyed. The next one estimates his loss at $300, and so on, those residing in the narrow track of the storm, losing more or less. Many of our farmers have done haying, while it will take the majority from three to ten days yet to finish.

There is quite an interest felt here among many of our farmers, in the various methods of improved cultivation, as well as improved implements; but still far too many esteem all improvers as so many subjects for Barnum's Museum, and until there shall be more of an awakening to the subject of truly scientific agriculture, our farmers will be "behind the times." And until more interest is taken in agricultural reading so as to elevate the minds of the "tillers of the soil," for no avocation can be elevated without a real and true expansion of mind, there will be too many of the opinion of "A Farmer's Son"—see *Farmer* of Aug. 9th.

I would ask your correspondent who thinks "cooked turnips" are excellent for stock, if he thinks the effect on stock, would be the same, as warm biscuit, hot coffee, &c. &c., on the human organization, if so I prefer that my cattle do without them, for *dyspepsia* is not a very agreeable disease to have.

Is it true that a "wet spell" about the time the weevil commence their operations upon wheat, has a tendency to destroy them?

When is the proper time for budding apple trees, and should the buds be taken from scions of this year's growth on trees from which you wish to bud? PROGRESS.

Glover, Vt., 1856.

REMARKS.—Send the suggestions as you propose. From July to September, apple trees may be budded with success. If very dry in July, postpone till rains come. Use buds from a shoot of the present year's growth.

EXTRACTS AND REPLIES.

COOKED VEGETABLES FOR STOCK—MILLET—LUCERNE—STRAWBERRIES.

Some one through the *Farmer* asks if cooking vegetables will pay. I cooked beets, carrots and turnips and mixed with shorts for my cows last winter, and think it paid well; the milk was much better.

I would like to be informed in regard to millet, the time to cut it, and if lucerne will come up the next spring after sowing, as clover does? When is the proper time to set out strawberries?

Cotuit Port, N. Y., 1856. D. CHILDS.

REMARKS.—Millet should be cut when just passing out of bloom.

Lucerne is a perennial plant, and will last, under favorable circumstances, some eight or ten years.

Set out strawberries in August or May.

ARTESIAN WELLS.

I would like to inquire through your paper if there are any artesian wells in New England, and if so, in what place? Is there any one acquainted with the business of boring? H. S. W.

Sunderland, 1856.

PRUNE SCIONS—PLUM SCIONS.

"M. M. J." is informed that the prune scions he inquires for were distributed gratis, and exhausted weeks ago.

PRUNING AND SCRAPING TREES.

What season of the year do you consider the best for scraping and pruning trees? R. S. S.

Derry, N. H., 1856.

REMARKS.—Old apple trees may be carefully dug about, and small branches and twigs, such as may be taken off easily with a pen-knife, cut off, at any time between the first of May and November. The middle of June is considered by distinguished orchardists, as the best time for pruning; after that, the month of October. It cannot, however, be too earnestly urged to cover all wounds, even though they be small ones, with something to protect them from the sun, rain and air. We have known common red paint extensively used, and without any apparent harm. This being a strong paint, resists the elements for many years. Care should be taken that the paint does not touch the edges of the bark. Gum arabic dissolved in alcohol, is, perhaps, the safest and best preservative to use.

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HOW TO GET RID OF EMMETS.

MR. FARMER:—Can you, or any of your numerous correspondents inform me how to get rid of emmets, which infest our pantry in swarms. We have never had any until about a month since, when, by some means or other, they got in. We have tried all manner of ways to exterminate them, without success. L. S.

South Abington, Aug., 1856.

REMARKS.—Wet a large sponge in sugar-water, and lay it on the shelf; when it is filled with ants, drop it into cold water, and drown them. If put into hot water, the ants are killed in the sponge, and occasion much trouble in removing them.

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MIXING OF PLANTS.

There is but one way in which vegetable or animal hybrids are produced. Corn will mix when the pollen of one variety falls on, or rather around the silk of another, and not otherwise. Beans and potatoes will mix when made to blossom in close proximity, but the mixing will be in the seeds, and not in the roots; a red tuber will no more become white, because a white one is planted in the same field, than a red cow will become white, if a white one graze in the same pasture.

A friend had two kinds of potatoes, red and white, which had been planted together till the "memory of man ran not to the contrary." The white variety had much the pleasantest flavor, but he assured me that they could not be separated, for when he planted white ones alone, still the product was red and white as before. I picked out a few of the white tubers, planted them carefully by themselves, and when I dug them found white ones only. I saved the balls, planted the seeds, and still had the same variety unmixed, unchanged, except they were of more vigorous growth. They are an excellent variety, and my family would not willingly part with them.

By the way, I have another variety; they are long, a little curved, very smooth, olive colored, one end a little larger than the other, and when of full growth, weigh one-half lb.; when eaten warm they are soft, and of excellent flavor. Are they State of Maine potatoes? CHARLES COOK.

Blackstone, Mass., Aug. 1st, 1856.

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IS AMMONIA A FERTILIZER?

MR. EDITOR:—Judging from the writings of agriculturists, it would seem to be a well ascertained fact that ammonia is the principal fertilizing agent of manures. The subscriber having never met with the proofs of this fact, you would confer a favor upon him, and perhaps upon others, by giving a statement of them in your valuable paper. A. W.

Stephentown, N. Y., 1856.

REMARKS.—The "proofs of this fact," probably, may be found in every load of dung that is used. It is stated by all chemists, we believe, that ammonia is one of the most valuable fertilizing substances contained in farm-yard manure, and it is usually present in greater proportion in the liquid than in the solid contents of the farm-yard. We have many particular instances of its efficacy before us in the books. A case is mentioned of a field in England being manured for wheat, in part with ordinary farm-yard manure, and in part with one hundred and fifty pounds of sulphate of ammonia, costing $5 50—when the produce of the manure was 24 bushels, and that of the ammonia, 33 bushels per imperial acre. Seeds steeped in the salts of ammonia, have been hastened in germination, and in the after luxuriance of the crop. In one experiment, seeds of wheat, steeped in the sulphate of ammonia on the 5th of July, had, by the 10th of August, tillered into nine, ten, and eleven stems of nearly equal vigor, while unprepared seed had not tillered into more than two, three or four stems. In Upper India sal ammoniac is prepared by heating together camel's dung and sea-salt, and is used for plants, and for the keeping of seeds. Plenty of experiments are detailed in the books, to which we refer "A. W.," such as Liebeg, Johnston's Elements, Thaer, Shaw, &c.

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THE PLUM AND CURCULIO.

MR. BROWN:—I recently read an in the *Farmer* by J. T. W. upon these subjects which I liked. I last year made a solution of salt, sulphur and urine, which proved a preventive of the curculio slugs. After diluting the mixture with water, I applied it to the trees and young fruit with a syringe, and my fruit was preserved.

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THE GROUND CHERRY.

We would inform "O. L. K." that there is nothing particularly remarkable about this fruit, or which should cause a demand of *fifty* cents each for it. We have only eaten it as a preserve, and in this form found it pleasant.

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WHITE FLINT WHEAT.

Mr. GEORGE W. MAYNARD, of Berlin, has left with us some fine specimens of this wheat, the product of his farm.

THE BLUEBERRY YEAR.

MR. EDITOR:—The year 1856 will be remembered here, in all coming time, as *the* blueberry year. Two years ago, large tracts of forest land were burnt over, leaving the ground in many places, fit for the harrow; these lands have since grown up whortleberry bushes, and they are literally covered with them this season. A bushel a day is an ordinary day's toil for a boy. The berries would command from 8 to 10 cts. per qt. at the first picking, but now they will not bring in Bangor market more than from one to two cts., and no sale at that. I have eight bushels which I bought to-day at the low price of 4 cts. per qt., and they will not pay me the freight on them to Bangor, a distance of 25 miles. What shall I do with them? Will they bring anything dried, in Boston market, next winter? Some one suggests to fill a barrel with them, and again fill with pure water, and then keep them in a cool place, and they will be good for pies, notwithstanding they become sour by fermentation. If so, will they be saleable? I can purchase 50 bushels of the nicest berries that were ever grown for 3 to 4 cts. per qt. Please to give us some information whereby so much of this bounty of our woods may be made to clothe our children, and still dispense a luxury to those far away.

Yours, C. S. WELD.

Ramon, Penobscot Co., Me., 1856.

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MORRILL HORSE.

MR. EDITOR:—I notice in your paper of the 21st inst. an inquiry about the Morrill Horse. Being a subscriber, I thought I would give the desired information.

The Morrill Horse is owned by French Morrill, of Danville, Vt., and kept by him at that place. Mr. Morrill has been the owner of the above horse since he was 3 years old; he is now 13 years old, of a jet black color, and weighs 1226 lbs.

PEDIGREE.

The Morrill Horse is a true descendant of the Justin Morgan and Messenger blood; he was sired by Jannison Horse, Jannison Horse by Young Morgan Bulrush, Young Bulrush by old Bulrush, and old Bulrush by Justin Farrington Horse, Farrington Horse by Vance Horse, and the Vance Horse by the celebrated Messenger Horse, an imported horse.

The Morrill Horse is probably the best stock horse for all work that can be found in New England; his stock has proved well and sells very high.

Danville, Vt., July 28th, 1859. A. M. W.

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CROPS IN ILLINOIS.

The July number of the *Farmer* has reached our prairie home as usual—we found it full of interest and encouragement for the farmer, perhaps more so to me, it being published in my own native State. We are now in our wheat harvest, which is excellent. Henry Co., as usual, will turn out a large surplus. Corn is growing on at a gallop speed, and bids fair to fill the granaries again to the brim. I wish I could induce some 50 or 100 young farmers from New England to come out here and occupy the thousands of acres now in view laying uncultivated within 3 or 5 miles from the great thoroughfare to the Atlantic. D. STEBBINS.

Burns, Henry Co., Illinois, July, 1856.

BOYS' DEPARTMENT.

SIT UPRIGHT.

"Sit upright! sit upright, my son!" said a lady to her son, George, who had formed a wretched habit of bending whenever he sat down to read. His mother had told him that he could not breathe right unless he sat upright. But it was no use; bend over he would, it spite of all his mother could say.

"Sit upright, Master George!" cried his teacher, as George bent over his copy book at school. "I. you don't sit upright, like Master Charles, you will ruin your health, and possibly die of consumption."

This started Master George. He did not want to die, and he felt alarmed. So after school he said to his teacher:—

"Please, sir, explain to me how bending over when I sit can cause me to have the consumption?"

"That I will, George," replied his teacher, with a cordial smile. "There is an element in the air called oxygen, which is necessary to make your blood circulate, and to help it purify itself by throwing off what is called its carbon. When you stoop you cannot take in a sufficient quantity of air to accomplish these purposes; hence, the blood remains bad, and the air cells in your lungs inflame. The cough comes on. Next the lungs ulcerate, and then you die. Give the lungs room to inspire plenty of air, and you will not be injured by study. Do you understand the matter now, George?"

"I think I do, sir, and I will try to sit upright hereafter," said George.

A TURKISH SCHOOL.—What a picture it was! On the cushioned divan, which ran along one side of the room, sat three venerable-looking Imaums, in flowing robes, long beards, white turbans, and with *chibouque*. On their right and left, upon the divan, were seated a dozen boys, of ages varying from six to twelve, whose dress marked them of high rank. In a conspicuous position among these was a tiny boy, about four years old. He wore a little coat of crimson velvet embroidered in gold; trousers and vest to match; a leather band, richly worked, round his waist, from which hung a tiny sword. On his head a velvet fez, beautifully embroidered, with a heavy gold tassel, completed his attire. On a small desk before the Imaums were several large books in the Turkish language. One was lying open. Below the divan were rows of little Turks all dressed alike, in the coat and trousers and crimson cloth fez. They sat in rows on the floor, like an English infant school, and their little red caps made them look in the distance, like a bed of poppies. Truth to say, they behaved a great deal better than the same number of little Britons would have done. Our entrance attracted their attention. Only for an instant they gave us a look, then settled themselves again. And now, one Imaum called up one boy after another to read a sentence out of the great book; when he had finished his sentence all the scnool cried out "Amen." At length, the little boy whose dress we have described descended from his seat, and stood at the Imaum's feet, then slowly repeated each word after the Imaum. He accomplished a sentence; a very loud "Amen!" followed, and there was a buz and a smile on every one's face, as if some feat had been

accomplished. The child returned to his place, and the other boys went up in turns for their lesson.

EIGHTEEN THINGS

In which young people render themselves very impolite:—

1. Loud laughter.
2. Reading while others are talking.
3. Cutting finger-nails in company.
4. Leaving meeting before it is closed.
5. Whispering in company.
6. Gazing at strangers.
7. Leaving a stranger without a seat.
8. A want of reverence for superiors.
9. Reading aloud in company without being asked.
10. Receiving a present without some manifestation of gratitude.
11. Making yourself the topic of conversation.
12. Laughing at the mistakes of others.
13. Joking others in company.
14. Correcting older persons than yourself, especially parents.
15. To commence talking before others are through.
16. Answering questions when put to others.
17. Commencing to eat as soon as you get to the table. And—
18. In not listening to what one is saying, in company—unless you desire to show open contempt for the speaker.

A well bred person will not make an observation whilst another of the company is addressing himself to it.

LADIES' DEPARTMENT.

FEMALE BEAUTY.

Dean Swift proposed to tax female beauty, and leave every lady to rate her own charms. He said the tax would be cheerfully paid and very productive.

Fontenelle thus daintily compliments the sex, when he compares women and clocks—the latter serve to point out the hours, the former to make us forget them.

The standards of beauty in woman vary with those of taste. Socrates called beauty a short-lived tyranny; Plato, a privilege of nature; Theophrastus, a silent cheat; Theocritus, a delightful prejudice; Carneades, a solitary kingdom; and Aristotle affirmed that it was better than all the letters of recommendation in the world.

With the Modern Greeks, and other nations on the shores of the Mediterranean, corpulency is the perfection of form of women; and these very attributes which disgust the Western European, form the attractions of an Oriental fair. It was from the common and admired shape of his countrywomen, that Rubens, in his pictures, delights so much in a vulgar and odious plumpness; when his master was desirous to represent the "beautiful," he had no idea of beauty under two hundred weight. His very graces are all fat. But it should be remembered that all his models were Dutch women. The hair is a beautiful ornament of women, but it has always been a disputed point which color most becomes it. We account red hair an abomination; but in the time of Elizabeth it found admirers and was in fashion. Mary of Scotland, though she had exquisite hair of her own, wore red fronts. Cleopatra was red-haired; and the Venetian ladies to this day counterfeit yellow hair.

After all that may be said or sung about it, beauty is an undeniable fact, and its endowment not to be disparaged. Sidney Smith gives some good advice on the subject. "Never teach false morality. How exquisitely absurd to teach a girl that beauty is of no value, dress of no use! Beauty is of value—her whole prospects and happiness in life may often depend upon a new gown, or a becoming bonnet; if she has five grains of common sense she will find this out. The great thing is to teach her their just value, and that there must be something better under the bonnet than a pretty face for real happiness. But never sacrifice truth."—*Salad for the Social.*

DOMESTIC RECEIPTS.

POTTED MEATS.—It sometimes happens to the ladies from some unforeseen circumstances, that large quantities of cooked meats, prepared for a party which did not come off, perhaps, remains on hand, which are measurably lost. Such should be potted. Cut the meat from the bone, and chop fine, and season high with salt, pepper, cloves and cinnamon. Moisten with vinegar, wine, brandy, cider, or Worcestershire sauce, or melted butter, according to the kind of meat, or to suit your own taste. Then pound it tight into a stone jar, and cover over the top with about a quarter of an inch of melted butter. It will keep months, and always afford a ready and excellent dish for the tea-table.

PINE-APPLE JELLY.—Pare and grate the pine-apple, and put into the preserving pan with one pound of fine white sugar to every pound of fruit; stir it and boil it until well mixed, and thicken sufficiently; then strain it, pour it into jars, and when it has become cool, cover the jellies with papers wet with brandy, cover the jars tightly, and treat them as apple jelly.

TO PREVENT JAMS FROM GRAINING.—A correspondent informs us that to prevent jams, preserves, etc., from graining, a teaspoonful of cream of tartar must be added to every gallon of the jam or preserve.

A GOOD WIFE.—In the eighty-fourth year of his age, Dr. Calvin Chapin wrote of his wife: "My domestic enjoyments have been, perhaps, as near perfection as the human condition permits. *She made my home the pleasantest spot on earth to me.* And now that she is gone, my worldly loss is perfect."

How many a poor fellow would be saved from suicide, from the penitentiary and the gallows, every year, had he been blessed with such a wife.

"She made home the pleasantest spot to me on earth." What a grand tribute to that woman's love, and piety, and common sense! Rather different was the testimony of an old man some three years ago, just before he was hung in the Tombs' yard of this city. "I didn't intend to kill my wife, but she was a very aggravating woman." Let each wife inquire, "Which wife am I?"—*Hall's Journal of Health.*